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DAVID R. STRAUSER
EDITOR

# CAREER DEVELOPMENT, EMPLOYMENT, AND DISABILITY IN REHABILITATION

## FROM THEORY TO PRACTICE

# *Career Development, Employment, and Disability in Rehabilitation*

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## From Theory to Practice

**David R. Strauser, PhD**
*Editor*

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*This book is dedicated to my wife Mary "Dolly" Strauser who has taught me how to work while keeping focused on what is truly important in life. This book is also dedicated to all the individuals with disabilities who I have had the chance to work with over the past 20 years. You are truly the teachers and you have been an inspiration for the contents of this book.*

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# *Preface*

Over the past 5 years, I have experienced a renewed interest and commitment to the importance and centrality of work in the lives of individuals, especially individuals with disabilities. Let me clarify this by saying that I never lost interest in work, but I went through a phase where I felt guilty about losing sight of how important work is in the lives of individuals. This doubt about the centrality of work may have begun because of being housed in the College of Health Sciences' Department of Kinesiology and Community Health. With a consistent and persistent emphasis on health and exercise, it has become easy to lose perspective on how important work is to individual well-being, social interaction, and self-determination. Through my years at the University of Illinois at Urbana-Champaign, I have become well aware of the benefits of exercise and physical activity and have heard many speakers, presenters, and colleagues espouse the benefits of exercise for reducing depression, reducing the risk of falls for the elderly, and reducing diabetes, cardiovascular risks, and inflammation. They do so with such vigor and confidence that, from my perspective, it occupies almost every aspect of their lives. I developed what, in hindsight, was insecurity about the centrality of work, because everyone else around me was studying exercise. When I was asked by my kinesiology and health colleagues about my research agenda, they would give me a look similar to that of my dogs when they do not understand a command. I say, "I study employment and career development of individuals with disabilities" and they say, "Oh, I didn't know people do that." As a result of many years of hearing about the benefits of exercise and getting the confused-dog look regarding my research, I began to lose sight of what is important. Two events that were interlinked helped me to regain my focus and led me to be inspired to edit a book that I believe addresses an issue that is central to everyone's life, work.

The first event was the Great Recession, which significantly impacted so many lives and created a wake of unemployment, financial distress, decreased levels of well-being, disempowerment, and detachment across all levels of society. In addition to living in Champaign, Illinois, I also spend my time in Memphis, Tennessee, a city that has been significantly impacted by the Great Recession. Memphis was significant in my eyes because I was reading and experiencing daily the impact of the Great Recession on the residents through the increased unemployment, poverty, and disability rate and the significant economic distress that impacted all aspects of the city.

The second significant event is related to both Memphis and the Great Recession. Through my years of living in Memphis, I came to know an individual very well who grew up in poverty, did not graduate from high school, but was able to secure

employment for over 15 years doing seasonal groundskeeping work for the City of Memphis. Prior to the Great Recession, I took for granted how much this job meant to him, and how much it contributed to his overall identity, well-being, and self-determination. However, the importance of this seasonal job became very clear when the City of Memphis had a wide-scale layoff of its seasonal groundskeeping crew. Prior to being laid off, this individual was an easy-going guy, had never been arrested, had no problems with the police, and was able to keep his diabetes in check because of the physical nature of his work. After being laid off, he has been arrested several times, is angry and hard to get along with, is unsure of where and how he fits in, and his diabetes is out of control. This is a clear example of an individual who has been significantly impacted by the Great Recession and the loss of his job. Along with his identity being compromised, he has lost his ability to generate income, has become socially isolated, and has limited self-determination. Seeing the change in this individual first hand was a powerful experience, which in my opinion truly speaks of the centrality of work, and in this case, the negative impact of not being employed.

With these events as a backdrop for this book, I set out to develop a text for rehabilitation students and professionals that I believe provides a comprehensive review of the career development and employment issues, theories, and techniques that impact rehabilitation professionals in their work with people with disabilities. There are several unique features of this book that I think are worth mentioning. First, this book starts out by introducing the reader to the centrality of work. Although this is not a new concept, the centrality of work is couched in the psychology of work framework that provides a broader application to all individuals, regardless of their disability and socioeconomic and employment status. The psychology of work framework provides the reader with a foundation for understanding how and why work is central to individuals' lives. The centrality of work also provides significant meaning and value to the work that rehabilitation professionals undertake to enhance the career development and employment of individuals with disabilities.

A second unique aspect of this book is that this is the first career book on rehabilitation to discuss the impact of poverty on the career development and employment prospects of individuals with disabilities. To me, this is an area that has been systematically overlooked and neglected in the rehabilitation literature. However, poverty impacts so many individuals with disabilities that it can no longer be neglected and its role in the career development and employment process must be addressed. This book attempts to plug this gap in rehabilitation by introducing poverty as a key construct related to the career development and employment process.

Third, this book provides a comprehensive review of the major theories related to career development and employment. Unlike other career development books that address disability, this book expands the theoretical discussion beyond traditional career development theories to include the theoretical foundations of job satisfaction, work analysis, personality, and impression management. These issues are extremely relevant to vocational rehabilitation, yet they are not covered in any of the disability-specific career and vocational texts. This is the first career book on disability to introduce these concepts as being related to and critical to the career development and employment of individuals with disabilities.

Finally, I believe that this book provides a detailed discussion of two related concepts that are not typically covered in career development books. This book provides detailed information regarding the importance and methodology of conducting both labor market and transferable skills analyses. These concepts have been typically tied to forensic analysis and are well covered in that body of literature. However, these constructs have tremendous application in the broader career development and employment services

provided by rehabilitation service providers. This is especially true given the residual impact of the Great Recession and a focus on quality employment outcomes.

Overall, I hope that the readers of this book can either develop or reinforce their passion for the importance of work in the lives of individuals, especially individuals with disabilities. Through the quality contributions of many distinguished scholars in the field, I think that the readers will find this book to be a significant resource that can help them conceptualize and validate the work related to the career development of people with disabilities. It is easy to lose sight of the importance of work in the daily grind and it is my hope that this book provides some recognition of the efforts of both the rehabilitation students and service providers. **I also hope that instructors find the Instructor's Manual, that can be found at** textbook@Springerpub.com**, to be a useful resource as they develop and teach this important information**. Addressing the career development and employment of individuals with disabilities is important and life-changing work that is extremely satisfying. To paraphrase the words of a colleague of mine, this is work worth doing!

*David R. Strauser*

# Chapter 1: Introduction to the Centrality of Work for Individuals With Disabilities

DAVID R. STRAUSER

***After reading this chapter, you should be able to:***

1. Describe why work is important to individuals, especially individuals with disabilities.
2. Describe how work relates to meeting human needs.
3. Describe how work centrality is the foundation for career and vocational development.
4. Identify specific outcome domains for the three human needs of survival and power, social connection, and self-determination and well-being.

Work is the primary organizing structure of life and the significance of work in the lives of individuals with disabilities has been radically altered over the past half a century (Maytal & Peteet, 2009). Since its inception, the primary focus of the field of rehabilitation counseling has been the career development, employment, and vocational behavior of individuals with disabilities (Patterson, Szymanski, & Parker, 2005; Wright, 1980). The underlying philosophy of rehabilitation counseling is that work is a fundamental and central component of people's lives and is the primary means by which individuals define themselves in society (Blustein, 2008; Gottfredson, 2002; Super, 1969; Szymanski & Hershenson, 2005). Rehabilitation counselors who provide career and vocational services to individuals with disabilities must understand the complex interaction between work, society, and the individual in order to facilitate and maximize the career development, employment, and overall work adjustment of individuals with disabilities. The foundation of the rehabilitation counselor's ability to understand this complex interaction between the three variables of work, society, and the individual is the core value of the centrality of work.

In addition to the core value that work is central to people's lives, there are several underlying assumptions that are not only relevant, but are fundamental to facilitate the career and vocational development of individuals with disabilities and to guide the provision of vocational rehabilitation services. The interactions of these core assumptions listed below and the centrality of work are the key in facilitating positive career development, vocational behavior, and employment for individuals with disabilities. The first assumption is that the practice of rehabilitation counseling is focused on bringing about positive behavior change. This change in behavior can be big or small, involve the development of new skills or the enhancement of existing skills, but nevertheless, there is a focus on positive behavior change. Even when the focus of rehabilitation counseling is on maintaining employment, this is a focus on positive behavior change because the individual would not need rehabilitation counseling services if the individual had the necessary skills to achieve job maintenance independently. The second assumption is that the focus of rehabilitation counseling is to maximize the individual's ability to function independently in the environment of one's choice. The key words are independently and choice. Individuals with disabilities must have the independent desire to bring about change and be empowered to be change agents in their own lives. As a result, the approaches to facilitating career development and employment should focus on the individual being engaged, empowered, and goal directed. However, this does not mean that the rehabilitation counselor plays a passive role in the career counseling process. Instead, the counselor is a facilitator of change. As discussed in the broader counseling literature, approaches that focus on evidence-based practice, such as motivational interviewing, would appear to be optimal and have merit in maximizing client involvement while providing the necessary level of complementary direction to facilitate increased vocational behavior. The third assumption is that the counseling relationship between the rehabilitation counselor and the individual with the disability is the fundamental tool that rehabilitation counselors have in their tool kit to bring about effective and positive behavioral change. Research in the area of disability and vocational rehabilitation has provided significant support for the impact of a strong working alliance on facilitating effective rehabilitation outcomes (Lustig, Strauser, Weems, Donnell, & Smith, 2003). Therefore, the key focus for facilitating effective career development and maximizing employment opportunities for individuals with disabilities is on building and continually nurturing a strong working alliance.

With change, independence, evidence-based practice, and working alliance central to facilitating career development and vocational behavior, these concepts and constructs are covered in other chapters of this book and the broader counseling literature as a whole. As a result, the primary focus of this chapter is to provide an introduction to the centrality of work and discuss the role and importance of work in meeting basic human needs. Rehabilitation counselors must have a clear understanding of the centrality of work because it is the foundation that provides a contextual backdrop to the remaining chapters of this book.

## CENTRALITY OF WORK

Work has been, and will undoubtedly continue to be, central to all human societies. Work provides opportunities to advance, opportunities for social support systems, and opportunities for self-expression and self-determination, all necessary components of psychological health (Blustein, 2008; Neff, 1985). At the basic level, the activity of work itself is healthy and can be therapeutic. However, for individuals with disabilities, work

may be particularly beneficial because people with disabilities experience greater social isolation, stigma, and financial burdens when compared to people without disabilities (Blustein, 2008; Strauser, O'Sullivan, & Wong, 2010). Besides the commonly experienced negative financial impact following a chronic illness or disability, people with disabilities often become isolated and experience a decrease in self-esteem related to their diagnosis, disability, or chronic health condition. The work environment can offset this experience by providing opportunities for income, social interaction, support, and health and retirement benefits. According to Neff (1985), most work environments provide social environments that require a person to interact with others, perform rituals and customs that are meaningful, and provide opportunities for growth. These are the activities that sustain physical and mental health (Blustein, 2006, 2008).

Despite the significant potential benefits related to work, there can be times where work is considered to be hazardous or harmful and to have a negative impact on the individual. Specifically, an incongruent person–environment fit can lead to higher levels of depression and stress (Neff, 1985; O'Sullivan & Strauser, 2010). An incongruent fit is one where the individual's personal work style, personality, and value system do not fit well or are incongruent with the work environment (Hershenson, 1981; Holland, 1985; Neff, 1985). Service sector positions, common employment sites for individuals with disabilities, and work environments that are noisy, dirty, require long hours, and extreme weather conditions will also likely lead to increased stress levels (Szymanski & Parker, 2010). Other factors that contribute to reduction in mental health include job role ambiguity, lack of control or input, lack of support in high-responsibility jobs, and very low pay (Neff, 1985; Strauser et al., 2010). Work stress has been a topic of considerable concern for both psychology and business and has a significant, negative impact on the overall work environment (Baron & Greenberg, 1990; Kahn & Byosiere, 1990; Quick, Quick, Nelson, & Hurrell, 1997; Szymanski & Parker, 2010). For an individual with disabilities, the relationship between the individual's job and work stresses is complex, with the presence of a disability or chronic health condition further complicating the individual's ability to manage stress in the workplace. Managing work stress for individuals with disabilities is an important factor for rehabilitation counselors to consider in the career development and job placement process.

Because of its centrality across the life span and its impact on well-being, an understanding of how people must adapt to work after any life-changing event or congenital illness is an important consideration for rehabilitation counselors and should be the primary topic of rehabilitation counseling research. Competitive employment not only impacts a person's financial standing, but it has also been shown to improve self-esteem and mental health (Blustein, 2008). Competitive employment leads to improvements in physical and psychological health for many reasons. First, employment means income and social role, both of which lead to improvements in social status (Wolfensberger, 2002). There can also be improved access to better housing, health care, nutrition, neighborhood, and school districts, as well as crime-free communities and better family relationships (Blustein, 2008; Bond et al., 2001; Larson et al., 2007). From a community perspective, a study of urban Chicago (Wilson, 1996) found loss of employment empirically connected to a lower quality of life, including increased drug use, violence, and crime. According to Wilson (1996), employment status is more important than poverty for predicting family discord, violence in neighborhoods, and low-functioning school systems. Wilson (1996) explains that families who function in communities with high employment and who are poor experience fewer problems than families who function in communities with high *un*employment and high poverty. The loss of employment from an individual perspective is linked to higher rates of anxiety, depression, and

substance abuse (Blustein, 2008), and has been linked to decreased levels of well-being and health status. These states were found not to rebound back to levels prior to loss of employment despite eventual reemployment (Blustein, 2008; Blustein, Kenna, Gill, & DeVoy, 2008). This finding points to the lasting negative physical and psychological impacts experienced by those who experience unemployment, even after employment has been regained.

Across disability categories, employment rates are much lower for persons with disabilities compared to the national average. Despite the passage of the Americans with Disabilities Act (ADA), a recent report on the employment of individuals with disabilities has indicated that only 35% of working-age people with chronic illness or disability are employed compared to 78% of those without disabilities (National Council on Disability, 2007). Over the last two decades, the employment rate of individuals with disabilities has been hovering around 35%. Importantly, two-thirds of the unemployed persons with chronic illness and disability surveyed indicated that they would like to work, but could not find a job (Amir, Strauser, & Chan, 2009). Examination of specific disability groups reveals a similar trend. For persons with severe mental health conditions, only 15% are employed compared to the 77% of the general working-age population (Bond et al., 2001). For persons with mild mental retardation, roughly 2% to 9% are competitively employed (Moore, Feist-Price, & Alston, 2002). For persons who are visually impaired, only 40% to 45% of working-age persons are employed (Capella-McDonnall, 2005). For persons with spinal cord injuries, only 54% are employed (Marini, Lee, Chan, Chapin, & Romero, 2008). As a result of the low employment and underemployment rates, individuals with disabilities are socially isolated and are disengaged from broader society, placing them at increased risk for experiencing decreased levels of physical and psychological health and further complicating future career development and employment.

## WORK AND HUMAN NEEDS

Due to the centrality of work and its positive effect on individuals' physical and psychological health, work has been identified as a foundation for meeting human needs. According to Blustein (2006, 2008) and Blustein et al. (2008), work provides a means by which individuals can fulfill the following three basic human needs: (1) survival and power, (2) social connection, and (3) self-determination and well-being. In providing vocational and career services, it is important for rehabilitation counselors to understand from the individual with disability's perspective how educational experiences, conceptualization of work, work experience, familial and cultural background, and disability related factors impact these three basic human needs. Understanding the impact of work on these three fundamental human needs also highlights the complex way in which working functions in the human experience and the need for multidimensional outcomes in measuring the effectiveness of rehabilitation counseling interventions. Specifically, the traditional dichotomous outcome of *employed* versus *unemployed* does not cover the multidimensional impact of work in the lives of individuals with disabilities. Being employed only tells us that the person is working and tells us nothing about the quality of employment, how integrated the individual is in the social environment, and the autonomy with which the individual is functioning as a result of working or not working. Therefore, it is important to analyze how work impacts individuals' ability to meet their individual needs. According to Blustein (2008), three sets of human needs can be fulfilled by working.

## BASIC NEED OF SURVIVAL AND POWER

Work provides a means for individuals with disabilities to survive and derive power (Blustein, 2006; Blustein et al., 2008). In the modern labor market, the term "survival" can be equated with the individual being able to meet one's basic needs. Ideally, through competitive employment, individuals with disabilities should be able to generate enough income and benefits to meet their most basic needs. However, research has continuously found that individuals with disabilities are employed at a much lower salary than their counterparts without disabilities, are likely employed in positions with no real career path and no benefits, are underemployed, and when employed, occupy low-paying positions (Lustig & Strauser, 2007). A reciprocal relationship between disability and poverty has been established and is exacerbated by high rates of unemployment and underemployment for individuals with disabilities (Edgell, 2006; Lustig & Strauser, 2007). Globalization and the changing labor market have made it more difficult for individuals with disabilities to escape poverty (Szymanski & Parker, 2010). As a result, many individuals with disabilities are unable to meet their most basic human needs independently, often creating a state of dependence with no real promise for achieving higher states of vocational or career functioning.

The human need for the acquisition of psychological, economic, and social power is closely tied to meeting basic needs (Blustein, 2006). For individuals with disabilities this means that working should provide material and social resources that increase an individual's agency within society. In essence, work should give an individual purpose and relevance within the broader contextual environment. Individuals who are working assume an increased social role that ultimately increases their ability to derive psychological, social, and economic power (Wolfensberger, 2002). However, there are many structural and cultural barriers that negatively impact the access of individuals with disabilities to high-status employment; this limits them to low-status occupational and social roles, which contributes to a state of disempowerment (Szymanski & Parker, 2010). Occupying these disempowered and low-status roles perpetuates dependence on others (individuals, institutions, and programs) and does not fulfill the individual's personal needs.

Rehabilitation counselors need to be aware that the individuals with whom they work have an inherent need for survival and power and that work is critical to meeting these individual needs. Vocational and career services should be directed at increasing career and employment opportunities to maximize individuals' abilities to sustain themselves and increase their power by obtaining positions that have increased social value. Table 1.1 provides a list of potential outcomes that could be used to measure an individual's ability to meet his or her needs for survival and power.

## BASIC NEED FOR SOCIAL CONNECTION

Individuals are social beings who have strong needs to be connected with the broader society and develop strong interpersonal relationships (Blustein, 2006; Bowlby, 1982). Participation in work-related activities provides an opportunity for individuals with disabilities to connect with other individuals and their broader social and cultural environments (Blustein, 2008). Ideally, through work, individuals develop positive relationships that supply the support needed to manage work-related stress and foster identity development (Blustein, 1994; Schein, 1990). In contrast, individuals who experience negative work environments, where they feel isolated, disconnected, and under stress, will potentially experience a decrease in job performance and work adjustment, which will

most likely contribute to decreased well-being. Finally, working provides a mechanism for individuals with disabilities to develop a sense of connection with their broader social world through contributing to the larger economic structure of society (Blustein, 2006). Earning a paycheck and contributing to society's well-being by paying fair and reasonable taxes is a valued social role.

Rehabilitation counseling should be focused not only on finding employment, but also on how employment can increase individuals' levels of social integration. Many times in rehabilitation counseling, the focus of work and socialization is directed at enhancing the person's socialization on the job and with coworkers. However, Blustein (2008) highlights that the social impact and benefits of work are not limited to the work environment, but also include the broader community. As a result, rehabilitation counselors need to ensure that their efforts regarding socialization include not only the work environment, but also how work can be leveraged to increase individuals' overall level of social integration in roles and communities that individuals desire to occupy and in which they wish to participate. Potential outcomes for measuring an individual's level of social connection are highlighted in Table 1.1.

## BASIC NEED FOR SELF-DETERMINATION AND WELL-BEING

Individuals are naturally driven to search for environments that promote self-determination, self-expression, and well-being. Since vocational rehabilitation services have been offered, rehabilitation counselors have played a critical role in conceptualizing and facilitating work environments that promote physical and psychological well-being for people with disabilities and chronic health conditions. Job placement in safe environments, promotion of accommodations such as flexibility and remote site access, and the facilitation of environments and tasks that do not exacerbate symptoms are an example of the type of effective services provided through vocational rehabilitation. While all of these met objectives are necessary for well-being, they are not sufficient. Ideally, individuals work in environments that provide them with opportunities to exercise self-determination and self-expression, and promote individual well-being by participating in work that is consistent with their skills and interests. However, very few individuals with disabilities have the opportunity to participate in work-related activities that correspond to their personal skills and interests, and they often pursue employment for extrinsic reasons such as income (Blustein, 2008). Research has suggested that promoting *autonomy*, *relatedness*, and *competence* in relation to work that is initially pursued for extrinsic reasons can increase the individual's level of self-determination and well-being related to work (Ryan & Deci, 2000). Blustein (2008) also suggested that when an individual's personal values and goals coincide with those of the work organization and when the work environment provides the individual with resources and supports that foster successful work experiences, the individual's level of well-being increases.

It is important to note that we are not suggesting that the promotion of autonomy, relatedness, and competence can transform a job with low pay, high stress, and an overall poor work environment into a positive and rewarding work experience. What we are suggesting is that for individuals with disabilities who are not employed in jobs that are consistent with their interests and abilities, rehabilitation counselors can address these constructs of *autonomy*, *relatedness*, and *competence* to promote a better work experience

**Table 1.1** *Needs, Constructs, and Specific Outcome Domains Related to Rehabilitation Counseling Outcomes*

| Need | Outcome Constructs | Specific Outcome Domains |
|---|---|---|
| Survival and power | Compensation | Salary |
| | | Benefits |
| | | Pay incentives |
| | | Indirect compensation |
| | Employee development | Internal development |
| | | External development |
| | Perceived occupational status | Low-status positions |
| | | High-status positions |
| Social connection | General integration | Conformity |
| | | Acceptance |
| | | Orientation |
| | Social support | Close interpersonal relationships |
| | | Diffuse relationships |
| | Leisure | Leisure activities |
| | | Recreational activities |
| | Independent living | Individual's living situation |
| Self-determination and well-being | Well-being | Quality of life |
| | | Satisfaction with life |
| | | Physical health status |
| | | Psychological health status |
| | Self-determination | Autonomy |
| | | Relatedness |
| | | Capacity |
| | | Values and goals |

for individuals with disabilities. Specifically, addressing these issues through counseling and a careful analysis of how individuals with disabilities derive meaning from their work is important. It can help provide rehabilitation counselors the knowledge to enhance the employment conditions that frame the experience of most people with disabilities who must accept employment options that have low pay, no benefits, and limited opportunities for advancement so that they can support themselves and their family (Blustein, 2008). Potential outcomes for measuring self-determination and well-being are highlighted in Table 1.1.

## CONCLUSION

The centrality of work in people's lives is a core value that guides vocation rehabilitation counseling services. Work centrality is related to health and well-being and is intimately tied to meeting basic human needs. When the centrality of work is the core value guiding vocational rehabilitation services, the rehabilitation counselor is working to increase the individual with disabilitie's power, social connection, and self-determination. These outcomes can be operationalized by multiple outcomes and cannot be measured by the traditional dichotomous outcomes of employed versus unemployed. The remaining chapters of this book provide information regarding specific theories, vocational services provided, and specific issues relevant to certain populations of individuals with disabilities as it relates to career development and employment. Despite the content covered, the centrality of work is the fundamental and core value driving all of the subsequent chapters.

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# *Chapter 2: Disability Prevalence and Economic Outcomes*

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***After reading this chapter, you should be able to:***

1. Develop a better sense of the diversity within the population with disabilities and how this diversity translates into differential economic outcomes by demographic characteristics, geographic location, and disability type.
2. Develop an increased understanding of the scope of the economic disparities between people with and without disabilities and within the population with disabilities, as these disparities exist regardless of how employment is measured and extend into wages/salaries, income, household income, poverty, and safety-net program participation.

There are far-reaching and persistent disparities between Americans with and without disabilities with respect to educational attainment, employment, health, health care, household income, and government program participation. Americans with disabilities are more likely to drop out of school, less likely to be employed, more likely to live in poverty, more likely to have unmet health care needs, and more likely to participate in government safety-net programs than Americans without disabilities (Houtenville, Stapleton, Weathers, & Burkhauser, 2009).

Disability is experienced by Americans in every corner of America, and as a result, Americans with disabilities are every bit as diverse as Americans without disabilities. There is heterogeneity in disability type, demographics, and geographic location, and the disparities mentioned above differ across these diverse groups (Houtenville & Ruiz, 2011). Much may be learned from these differences; for instance, certain groups in certain locations may prove to have better than average employment outcomes and thus serve as a focal point for developing effective policies and practices. Thus, individuals and organizations providing employment services to people with disabilities can benefit from a greater understanding of these differences.

The purpose of this chapter is to provide and discuss national statistics on the educational, employment, and financial experiences of people with disabilities in the United States that will be explored in detail in subsequent chapters. All of the statistics presented are calculated from the American Community Survey (ACS), a large, nationally representative dataset collected by the U.S. Census Bureau. We start with a description of the ACS including how it measures disability and employment. We then present our findings on the following:

1. Heterogeneity in disability prevalence
2. Heterogeneity in employment rates
3. Heterogeneity in broader socioeconomic outcomes
4. Occupational and industrial composition of workers with disabilities

In each of the four sections, we examine overall differences between individuals with and without disabilities. Given the heterogeneity among individuals with disabilities, we also examine differences by type of disability, demographic characteristics, education, and state of residence. In many cases, we find striking differences in outcomes by type of disability, across states, and by education and demographic characteristics. We conclude with a discussion of the implications that the ACS data have for the state/federal vocational program as well as an overview of the ACS data products that are available to provide national and local statistics.

## DATA DESCRIPTION

The data used to produce the statistics in this chapter were obtained from the ACS, an annual national survey conducted by the U.S. Census Bureau. This survey began in 2000, was fully implemented in 2008, and in 2010 it replaced the decennial census long form, which had provided local demographic, social, and economic statistics (such as county-level poverty rates) every 10 years. The survey is conducted every year on a large sample of approximately 3.1 million individuals, providing demographic, economic, and housing data on a nationally representative sample of community-dwelling U.S. residents. It was designed to have the breadth, size, and frequency to provide researchers, policy makers, and communities with reliable and timely information to plan investments and services. We pool data from the 2008 to 2010 ACS public-use microdata files in order to have adequate sample sizes across states, by types of disabilities and demographic characteristics.

Since its inception the ACS has contained a sequence of six questions—related to functional and activity limitations—used to identify the population with disabilities. These questions were revised in 2008, and this analysis considers only the 2008 to 2010 survey results in order to ensure consistency in analysis and thus will only evaluate the revised questions.[1] These questions are as follow:

> Is this person deaf or does he or she have serious difficulty hearing? [yes | no]
>
> Is this person blind or does he or she have serious difficulty seeing even when wearing glasses? [yes | no]
>
> [For persons aged 5 and older] Because of a physical, mental, or emotional condition, does this person have serious difficulty concentrating, remembering, or making decisions? [yes | no]
>
> [For persons aged 5 and older] Does this person have serious difficulty walking or climbing stairs? [yes | no]

> [For persons aged 5 and older] Does this person have difficulty dressing or bathing? [yes | no]
>
> [For persons aged 15 and older] Because of a physical, mental, or emotional condition, does this person have difficulty doing errands alone such as visiting a doctor's office or shopping? [yes | no]

A person is considered to have a disability if he or she (or a proxy respondent) responds affirmatively to at least one of these questions. These six questions are also used to generate statistics for six subpopulations of people with disabilities according to disability type: hearing, vision, ambulatory, cognitive, self-care, and independent living disability, respectively. We further discuss conceptual and measurement issues in identifying persons with disabilities in surveys in the next section on disability prevalence.

The ACS also collects comprehensive demographic information. The analysis contained within this chapter examines disability and economic patterns by gender, age, race, Hispanic ethnicity, and educational attainment. With regard to race, the ACS allows for the reporting of 17 possible races, including an open-ended "other race," and uses the standard federal approach of allowing respondents to report more than one race. The analysis below provides statistics by White alone (i.e., singly), Black or African American alone, Asian alone, some other race alone, and two or more races. Hispanic ethnicity is reported separately from race. With regard to educational attainment, the ACS allows for 14 different categories, stemming from the question, "[w]hat is the highest degree or level of school this person has completed?" We provide statistics for seven categories of educational attainment: less than 9th grade, 9th to 12th grade, high school graduate (or equivalent), some college/no degree, associate's degree, bachelor's degree, and graduate/professional degree.

The ACS also collects an array of economic information relating to employment, income, and participation in government programs. The analysis below examines economic status with respect to current employment, labor force participation, and unemployment, full-time/part-time full-year/part-year employment, hours worked, occupation, industry, earnings (wages and salaries) from work, personal, family, and household income, poverty, and participation in Social Security disability programs and other government programs.[2] In order to fully appreciate the analysis, it is necessary to understand the economic variables and the manner in which they are collected. The following section provides a discussion of key aspects for the economic variables used in the analysis.

Information on current employment and labor force participation is collected on the basis of the "past week" (i.e., the reference period that respondents are asked to consider). Information on hours worked (and full-time/part-time full-year/part-year employment status), earnings, and income is collected on the basis of "the past 12 months." Earnings and income data from 2008 and 2009 are inflation-adjusted to reflect 2010 dollars. In addition, poverty is based on the official U.S. approach to defining poverty, which accounts for household size and household age composition. With respect to participation in government programs, note that the ACS does not allow for distinguishing Social Security Disability Insurance (SSDI) from the overall Old-Age, Survivors, Disability Insurance (OASDI) program. Therefore, the analysis of Social Security program participation is restricted to persons aged 18 to 61 years in order to rule out individuals receiving early Social Security retirement benefits. Participation in "other programs" includes participation in the Supplemental Nutrition Assistance Program (aka Food Stamps), Temporary Assistance to Needy Families (TANF), Medicaid, Medicare, Tricare, veterans' health insurance, and Indian Health Services.

In keeping with this book's focus on the employment for people with disabilities, the analysis of this chapter focuses on working-age civilians aged 18 to 64. The sample used in the analysis contains 5,543,172 observations. In the tables that follow, the cell

that has the smallest sample size is the Wyoming vision disability cell of Table 2.3 with a sample size of 141. This sample represents an estimated population of 4,580 working-age civilians with vision disabilities in Wyoming. Sample weights are used to adjust estimates for the complex sample design of the ACS and to ensure that the estimates reflect the U.S. population.

## HETEROGENEITY IN DISABILITY PREVALENCE

Due to variation in definition, degree of existence, cultural issues, and many other factors, the measurement of disability is much more complex and controversial than the diagnosis of traditional medical conditions. As conceptualized by the International Classification Functioning (ICF) Disability and Health Model, disability is a complex phenomenon that stems from the interaction of a diverse set of chronic health- and function-related conditions with an equally diverse array of physical and environmental factors, leading to a heterogeneous population of people experiencing disability with respect to disability type and severity (Jette & Badley, 2000; Nagi, 1969; World Health Organization, 2001). It is important to account for this heterogeneity when examining the employment outcomes of people with disabilities.

Operationalizing disability in a survey to identify the population with disabilities is very difficult. Self-reported measures of disability in surveys can be influenced by the surrounding socioeconomic conditions. For example, individuals are more likely to identify themselves as disabled if they are unemployed or are receiving disability benefits (Benitez-Silva, Disney, & Jimenez-Martin, 2009; Waidmann, Bound, & Schoenbaum, 1995), while those with certain functional limitations who are successfully working are less likely to report having a disability that limits the kind of work they can do (Burkhauser, Daly, Houtenville, & Nargis, 2002; Houtenville, Stapleton, Weathers, & Burkhauser, 2009). If demographers were able to ask enough questions, they could account for these response biases. However, this is not practically possible because there is limited space available on census surveys (Burkhauser, Houtenville, & Tennant, 2012).

As mentioned previously, the U.S. Census Bureau adopted a six-question functional limitation sequence for all of its data collection products and our estimates in this chapter are based on answers to these questions. The ACS uses six questions to identify the population with disabilities that are at risk of needing social services (Brault, Stern, & Raglin, 2007): four questions related to functional limitations (hearing, vision, ambulation, and cognition) and two related to activity limitations (self-care activities and independent living activities). These six questions are limited because they were designed to fit into a relatively small amount of survey space.[3] In recognition of the heterogeneity within the population with disabilities, the analysis below estimates prevalence and economic statistics separately for the six disability types provided in the ACS.

A person is considered to have a disability if he or she (or a proxy respondent) responds affirmatively to at least one of these questions.[4,5] Table 2.1 shows that, based on the responses to these six questions, about 10.3% of the working-age noninstitutionalized U.S. population had a disability in 2011. Prevalence was highest for ambulatory difficulties (5.3%) followed by cognitive (4.3%), independent living (3.6%), hearing (2.1%), self-care (1.9%), and vision (1.8%). The prevalence rate across all disabilities is slightly higher for men than for women (10.6% vs. 10.0%); however, this difference varies by type of disability. For example, women have higher rates of ambulatory and independent living disabilities, probably due to the fact that disability prevalence rises with age and women make up a disproportionate share of the older population.

Table 2.1 *Population Size and Disability Prevalence of Noninstitutional Working-Age (Ages 18–64) Civilians, by Demographics and Disability Status*

| Demographic Characteristic | Population Size | Prevalence Rate | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Disability Type | | | | | |
| | | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| All noninstitutionalized civilians aged 18–64 | 191,797,000 | 10.3 | 2.1 | 1.8 | 5.3 | 4.3 | 1.9 | 3.6 |
| **Gender** | | | | | | | | |
| Men | 94,774,000 | 10.6 | 2.8 | 1.8 | 4.9 | 4.5 | 1.8 | 3.4 |
| Women | 97,023,000 | 10.0 | 1.5 | 1.8 | 5.7 | 4.1 | 1.9 | 3.8 |
| **Age** | | | | | | | | |
| Ages 18–29 | 50,757,000 | 5.6 | 0.8 | 1.0 | 1.3 | 3.5 | 0.8 | 2.0 |
| Ages 30–39 | 39,768,000 | 6.5 | 1.1 | 1.1 | 2.5 | 3.3 | 1.0 | 2.3 |
| Ages 40–49 | 43,878,000 | 10.2 | 2.0 | 1.9 | 5.2 | 4.4 | 1.9 | 3.6 |
| Ages 50–59 | 41,120,000 | 15.7 | 3.5 | 2.8 | 9.7 | 5.5 | 3.2 | 5.5 |
| Ages 60–64 | 3,693,000 | 19.9 | 5.3 | 3.4 | 12.9 | 6.0 | 4.0 | 6.5 |
| **Race** | | | | | | | | |
| White alone | 142,658,000 | 10.1 | 2.3 | 1.6 | 5.1 | 4.2 | 1.8 | 3.5 |
| Black or African American alone | 24,122,000 | 14.0 | 1.8 | 3.0 | 8.0 | 6.1 | 2.8 | 5.2 |
| Asian alone | 9,947,000 | 4.3 | 0.9 | 0.8 | 1.7 | 1.7 | 0.7 | 1.6 |

*(continued)*

Table 2.1 *Population Size and Disability Prevalence of Noninstitutional Working-Age (Ages 18–64) Civilians, by Demographics and Disability Status (continued)*

| Demographic Characteristic | Population Size | Prevalence Rate | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Disability Type | | | | | |
| | | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| **Race** | | | | | | | | |
| Some other race alone | 11,426,000 | 9.2 | 1.8 | 2.2 | 4.6 | 3.7 | 1.6 | 2.9 |
| Two or more races | 3,644,000 | 14.5 | 2.7 | 2.7 | 7.2 | 7.2 | 2.5 | 5.0 |
| **Ethnicity** | | | | | | | | |
| Hispanic | 29,662,000 | 8.1 | 1.5 | 2.0 | 3.9 | 3.3 | 1.5 | 2.6 |
| Non-Hispanic | 162,135,000 | 10.7 | 2.2 | 1.8 | 5.5 | 4.5 | 1.9 | 3.7 |
| **Educational attainment** | | | | | | | | |
| Less than 9th grade | 8,682,000 | 20.4 | 3.8 | 4.7 | 11.1 | 11.1 | 5.5 | 9.8 |
| 9th to 12th grade, no diploma | 16,950,000 | 18.8 | 3.1 | 3.6 | 9.7 | 9.5 | 3.5 | 7.2 |
| High school graduate (or equivalent) | 52,668,000 | 12.8 | 2.6 | 2.1 | 6.6 | 5.4 | 2.3 | 4.6 |
| Some college, no degree | 47,581,000 | 9.5 | 2.1 | 1.6 | 4.9 | 3.6 | 1.6 | 2.9 |
| Associate's degree | 14,910,000 | 8.5 | 2.1 | 1.4 | 4.5 | 2.9 | 1.5 | 2.5 |
| Bachelor's degree | 33,567,000 | 4.6 | 1.2 | 0.8 | 2.1 | 1.4 | 0.7 | 1.3 |
| Graduate or professional degree | 17,439,000 | 4.2 | 1.2 | 0.7 | 1.9 | 1.1 | 0.6 | 1.1 |

Indeed, the next panel of Table 2.1 shows a sharp disability–age gradient, with the prevalence rate rising from about 5% among 18- to 29-year-olds to 20% among 60- to 64-year-olds. Among those with disabilities, the composition of type of disability differs by age. Before age 40, cognitive disabilities are the most prevalent, while among individuals aged 40 and older, ambulatory disabilities are the most common. While much of the difference in composition of type of disability probably reflects life-cycle health changes, some of it may also reflect cross-cohort differences. It is possible that cognitive disabilities are more prevalent among cohorts of individuals born in more recent years. Unfortunately, that cannot be examined in cross-sectional data or in repeated panels of the ACS because the ACS and the six questions have only been surveyed nationally in recent years.

Significant differences in prevalence rates for disabilities also exist by race and Hispanic ethnicity. African Americans and multiracial individuals have overall prevalence rates of about 14%, compared to 10.1% among Whites, 8.1% among Hispanics, and 4.3% among Asians. This relative ordering of prevalence by race and ethnicity is fairly consistent across type of disability with two exceptions. African Americans have lower rates of deafness and hearing loss than Whites. Hispanics have higher rates of vision disabilities than non-Hispanics.

The disparities are particularly striking by education level. Individuals with the lowest documented level of educational attainment, less than 9th grade, have a prevalence rate of 20% which is nearly five times the prevalence rate of those with a graduate degree. We focus on comparisons between two of the larger segments of the population by education—those with a high school degree and those with a bachelor's degree. The disability prevalence rate of 12.8% among those with a high school degree is 2.8 times the prevalence rate of individuals with a bachelor's degree. The higher relative risk among those with less education is greatest for cognitive disabilities, where those with a high school degree only are almost four times more likely to have cognitive disabilities than those with a bachelor's degree and lowest for hearing loss. This may reflect the relative influence of socioeconomic status (SES) and health care access—which are both correlated with education—on the onset and persistence of different kinds of disabilities. The differences in disability rates by education may also reflect causality in the opposite direction. Unfortunately, youth with disabilities are significantly less likely to complete high school, attend college, and complete college (U.S. Department of Education, 1999). We cannot differentiate between these two pathways in the ACS.

## HETEROGENEITY IN EMPLOYMENT RATES

Keeping in mind the heterogeneity in prevalence rates, we now turn to an examination of employment rates. We define the employment rate as the number of individuals within a given group that are working, divided by the total number of individuals in that group. The first row of Table 2.2 shows that among working-age individuals with disabilities, the employment rate is 34.6%, less than half the rate for individuals without disabilities of 74.1%. There is, however, a great degree of heterogeneity in employment rates by type of disability, demographic groups, educational attainment, and state of residence.

### *By Type of Disability*

Individuals with hearing disabilities, which includes the deaf and hearing impaired, have the highest rates of employment among individuals with disabilities, of just over

Table 2.2 *Employment–Population Ratio (aka Employment Rate) of Noninstitutional Working-Age (Ages 18–64) Civilians, by Demographics and Disability Status*

| Demographic Characteristic | Total | Disability Status | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Disability Type | | | | | |
| | | No Disability | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| All noninstitutionalized civilians aged 18–64 | 70.0 | 74.1 | 34.6 | 50.6 | 37.6 | 25.4 | 23.7 | 16.2 | 16.4 |
| **Gender** | | | | | | | | | |
| Men | 73.9 | 78.4 | 36.3 | 53.3 | 39.2 | 24.8 | 24.1 | 17.0 | 17.0 |
| Women | 66.2 | 70.0 | 32.8 | 45.8 | 36.0 | 25.9 | 23.3 | 15.5 | 15.8 |
| **Age** | | | | | | | | | |
| Ages 18–29 | 63.7 | 65.3 | 36.5 | 49.7 | 44.0 | 28.2 | 29.9 | 21.6 | 22.2 |
| Ages 30–39 | 76.5 | 79.1 | 39.5 | 57.2 | 47.8 | 30.0 | 29.3 | 23.0 | 22.4 |
| Ages 40–49 | 77.0 | 81.5 | 37.4 | 57.3 | 41.9 | 27.9 | 24.0 | 18.3 | 17.6 |
| Ages 50–59 | 71.5 | 78.5 | 34.4 | 52.8 | 35.1 | 25.7 | 19.6 | 14.4 | 13.9 |
| Ages 60–64 | 59.5 | 66.9 | 29.7 | 44.3 | 25.8 | 22.4 | 15.9 | 12.3 | 10.7 |
| **Race** | | | | | | | | | |
| White alone | 71.9 | 75.9 | 36.4 | 53.0 | 39.2 | 26.1 | 25.1 | 16.7 | 17.0 |
| Black or African American alone | 61.3 | 67.1 | 26.3 | 36.2 | 30.7 | 22.1 | 17.5 | 13.0 | 12.8 |
| Asian alone | 70.1 | 71.5 | 39.2 | 50.9 | 45.6 | 32.1 | 27.0 | 22.9 | 21.4 |
| Some other race alone | 66.9 | 70.1 | 34.7 | 45.2 | 40.2 | 26.7 | 24.1 | 18.5 | 16.8 |
| Two or more races | 65.1 | 70.4 | 33.8 | 43.1 | 35.3 | 26.4 | 25.7 | 16.9 | 17.1 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Ethnicity** | | | | | | | | | |
| Hispanic | 68.0 | 70.8 | 35.9 | 47.8 | 42.5 | 27.2 | 25.2 | 18.9 | 17.6 |
| Non-Hispanic | 70.4 | 74.7 | 34.4 | 50.9 | 36.6 | 25.2 | 23.5 | 15.9 | 16.2 |
| **Educational attainment** | | | | | | | | | |
| Less than 9th grade | 54.1 | 62.8 | 20.4 | 26.7 | 23.8 | 13.8 | 14.9 | 9.8 | 11.6 |
| 9th to 12th grade, no diploma | 48.9 | 55.2 | 21.7 | 32.7 | 25.8 | 15.7 | 15.7 | 10.0 | 10.9 |
| High school graduate (or equivalent) | 65.8 | 70.7 | 32.7 | 49.4 | 36.0 | 23.5 | 23.9 | 14.8 | 16.5 |
| Some college, no degree | 69.3 | 72.5 | 39.3 | 54.5 | 43.1 | 29.6 | 28.7 | 19.0 | 17.8 |
| Associate's degree | 78.2 | 81.3 | 44.8 | 61.0 | 48.3 | 33.6 | 30.7 | 21.5 | 19.9 |
| Bachelor's degree | 81.0 | 82.4 | 52.4 | 67.9 | 58.1 | 41.2 | 37.1 | 29.0 | 26.4 |
| Graduate or professional degree | 85.0 | 86.1 | 58.4 | 72.8 | 62.5 | 47.2 | 40.3 | 35.6 | 31.5 |

50%. Blind and visually impaired individuals have the second highest rate of about 38%. Individuals with ambulatory and cognitive disabilities, which have the highest prevalence rates, have employment rates of around 25%. The lowest employment rates of around 16% are among those with self-care and independent living disabilities. This low employment rather may be a function of the increased severity among these individuals.

### *By Demographic Characteristics*

As with individuals without disabilities, among individuals with disabilities, the employment rate of women is about 90% that of men. However, women with cognitive disabilities have employment rates that are much closer to those of men, and women with ambulatory disabilities have employment rates that are higher than those for men. These could indicate that women with these disabilities are better at adapting or getting the social or employment supports necessary to maintain employment than are men. It could also be due to gender differences in the relative prevalence of particularly severe or hard-to-accommodate types of cognitive and ambulatory disabilities. For example, men have higher rates of bipolar disorder. In addition, if men are greater risk takers, this may produce higher rates of injuries that result in more severe mobility disabilities.

Employment rates vary by age regardless of disability status. Among individuals without disabilities, employment peaks for people in their 40s and is symmetrically lower at younger and older age groups. The age–employment profile for individuals with disabilities peaks earlier however, with the highest employment rate of 39.5% for individuals in their 30s. Rates steadily decline and are just below 30% among individuals aged 60 to 64. The peak in employment in the 30 to 39 age group is seen across all disability types except for individuals with hearing disabilities, who have an age–employment profile closer to those without disabilities.

Racial disparities in employment outcomes in the United States are well documented (Altonji & Blank, 1999; U.S. Department of Labor, 2012). In our analysis, we find that the disparity between African Americans and Whites, measured as the ratio of the employment rate for African Americans to the employment rate for Whites, is more pronounced among individuals with disabilities than individuals without disabilities. The relative African American–White employment rate is 88% for the nondisabled population but 72% for the disabled population. The opposite is true for Asians. Their employment rate relative to Whites increases from 94% in the nondisabled population to 108% in the disabled population. Multivariate analyses could attempt to tease out the causal dynamics underlying these differences, which could include differences in access to accommodations or social supports. Interestingly, these differences in relative employment rates between people with and without disabilities are not observed among individuals of other races or among those of Hispanic ethnicity.

### *By Education*

Comparisons of employment rates by educational attainment in the bottom panel of Table 2.2 show a steep education–employment gradient for individuals with disabilities, both overall and for each specific type of disability. The employment rate rises from 20% for those who have not completed high school to 33% for those whose education ended after graduating from high school. The trend continues with increased education as those who obtain bachelor's degrees have an employment rate of 53%.

While this gradient, which provides descriptive evidence consistent with the literature for the relationship between labor supply and education (Pencavel, 1986; Killingsworth & Heckman, 1986), is present among individuals without disabilities, it is steeper for those with disabilities. This could mean that the benefits of additional education are greater for individuals with disabilities than for individuals without disabilities. However, it could also partially reflect self-selection into education if individuals with disabilities who know that they are unlikely to work are least likely to invest in additional education.

### *By State*

Table 2.3 examines differences across the states in employment rates for people with and without disabilities, and with each of the six disabilities. It also examines the employment rate of individuals with disabilities relative to the individuals without disabilities (i.e., the relative rate of employment, which is the employment rate of people with disabilities, as a percentage of the employment rate of people without disabilities). This is a helpful measure because it "controls" for overall labor market differences across the states, which is important; simply looking at the employment rates for people with disabilities would likely just highlight states with struggling economies. Identifying those states with higher relative employment rates for people with disabilities could be a potential way of identifying the policies and programs that have greater success in improving employment outcomes for persons with disabilities.

The relative rate of employment ranges from a high of 68.5% in Wyoming to a low of 38.2% in Kentucky. Examining the two rates that go into calculating the relative rate illustrates that it reflects the higher employment rate for persons with disabilities in Wyoming, despite the fact that Wyoming also has a higher employment rate for persons without disabilities. Comparing the five states with the highest relative rates of employment to the five states with the lowest relative rates of employment reveals some patterns. First, the five states with the highest rates, Wyoming, North Dakota, Alaska, South Dakota, and Montana, are all sparsely populated western states. The five states with the lowest relative rates, Kentucky, West Virginia, Washington DC, Alabama, and Mississippi, are also geographically clustered and are states that have historically had higher poverty rates.[6] Comparisons of the relative rates across the states by type of disability lead to a similar ranking of states.

## HETEROGENEITY IN BROADER SOCIOECONOMIC OUTCOMES

Table 2.4 examines several socioeconomic outcomes, which are all interrelated: educational attainment, detailed labor force status, labor market attachment, labor earnings, total income, and receipt of income from public programs. The first panel shows striking differences in educational attainment between individuals with and without disabilities. Compared to individuals without disabilities, individuals with disabilities are twice as likely to lack a high school degree—9% have education less than 9th grade and 16% have education between 9th and 12th grade but lack a high school degree or GED. They are less likely to have all levels of college degrees—from associate's degrees to graduate degrees with the differences rising with the level of education. For example, just over 11% of individuals with disabilities have a bachelor's degree or graduate degree, compared to 28% of individuals without disabilities. Also alarming is that

Table 2.3 *Employment–Population Ratio (aka Employment Rate) of Noninstitutional Working-Age (Ages 18–64) Civilians, by Location and Disability Status*

| Location | Total | Disability Status | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Disability Type | | | | | |
| | | No Disability | Disability | Relative Rate[a] | Rank by Relative Rate | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| **United States** | **70.0** | **74.1** | **34.6** | **46.7** | **–** | **50.6** | **37.6** | **25.4** | **23.7** | **16.2** | **16.4** |
| AL | 65.2 | 71.7 | 29.0 | 40.4 | 48 | 43.4 | 31.1 | 20.5 | 19.3 | 12.1 | 10.9 |
| AK | 72.6 | 75.9 | 47.5 | 62.6 | 3 | 61.0 | 39.1 | 37.4 | 37.0 | 26.7 | 20.2 |
| AZ | 67.7 | 71.3 | 35.2 | 49.4 | 24 | 50.1 | 39.3 | 25.8 | 23.8 | 14.3 | 15.3 |
| AR | 66.8 | 73.6 | 31.2 | 42.4 | 44 | 48.9 | 34.9 | 22.0 | 20.2 | 12.4 | 13.7 |
| CA | 68.0 | 71.1 | 32.6 | 45.9 | 30 | 46.5 | 37.0 | 24.8 | 21.2 | 15.1 | 15.5 |
| CO | 74.0 | 76.9 | 43.0 | 55.9 | 7 | 59.5 | 45.4 | 30.3 | 30.8 | 19.6 | 20.1 |
| CT | 74.1 | 77.4 | 38.2 | 49.4 | 25 | 57.8 | 44.4 | 29.5 | 26.8 | 20.8 | 20.0 |
| DE | 71.7 | 76.0 | 37.5 | 49.3 | 26 | 59.7 | 40.5 | 27.5 | 26.8 | 21.8 | 21.3 |
| DC | 68.4 | 72.4 | 28.7 | 39.6 | 49 | 45.7 | 30.6 | 21.6 | 19.1 | 15.7 | 14.8 |
| FL | 67.7 | 71.8 | 31.4 | 43.7 | 41 | 46.1 | 36.5 | 24.2 | 20.8 | 15.8 | 14.0 |
| GA | 67.9 | 72.0 | 33.0 | 45.8 | 33 | 48.2 | 37.2 | 23.5 | 22.4 | 13.7 | 13.3 |
| HI | 74.0 | 77.0 | 39.9 | 51.8 | 16 | 53.7 | 47.3 | 30.8 | 26.6 | 19.0 | 19.8 |
| ID | 70.7 | 74.6 | 38.7 | 51.9 | 14 | 54.3 | 46.0 | 26.7 | 26.4 | 15.1 | 16.3 |
| IL | 71.3 | 74.6 | 35.4 | 47.5 | 28 | 53.6 | 37.2 | 27.8 | 23.8 | 17.2 | 17.8 |
| IN | 70.0 | 74.6 | 34.2 | 45.8 | 31 | 50.7 | 36.9 | 24.8 | 23.6 | 13.9 | 15.7 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| IA | 78.5 | 82.0 | 45.4 | 55.4 | 8 | 63.6 | 51.7 | 33.9 | 33.3 | 22.2 | 26.1 |
| KS | 75.5 | 79.5 | 43.0 | 54.1 | 11 | 60.4 | 46.5 | 33.3 | 30.8 | 21.9 | 19.7 |
| KY | 64.9 | 72.0 | 27.5 | 38.2 | 51 | 41.3 | 27.7 | 19.1 | 18.1 | 11.7 | 9.7 |
| LA | 67.1 | 72.4 | 33.1 | 45.7 | 34 | 48.9 | 36.8 | 23.5 | 23.2 | 11.3 | 14.8 |
| ME | 72.4 | 78.5 | 33.3 | 42.4 | 43 | 50.2 | 35.4 | 24.1 | 21.3 | 16.4 | 14.8 |
| MD | 75.1 | 78.3 | 40.6 | 51.9 | 15 | 57.8 | 42.5 | 33.1 | 27.3 | 22.2 | 19.8 |
| MA | 73.5 | 77.3 | 35.5 | 45.9 | 29 | 53.3 | 39.2 | 26.0 | 25.2 | 16.1 | 19.0 |
| MI | 66.0 | 70.7 | 30.0 | 42.4 | 42 | 44.9 | 32.2 | 21.8 | 21.0 | 13.6 | 15.0 |
| MN | 77.7 | 80.6 | 45.5 | 56.5 | 6 | 61.9 | 47.0 | 33.6 | 37.3 | 27.8 | 31.7 |
| MS | 63.7 | 70.0 | 28.5 | 40.7 | 47 | 44.4 | 31.0 | 21.1 | 18.0 | 11.0 | 12.4 |
| MO | 71.1 | 76.4 | 34.3 | 44.9 | 39 | 50.5 | 35.6 | 23.9 | 24.0 | 15.6 | 15.8 |
| MT | 72.4 | 76.1 | 43.3 | 56.9 | 5 | 63.1 | 48.7 | 28.7 | 33.6 | 26.1 | 26.5 |
| NE | 79.1 | 82.6 | 44.8 | 54.2 | 10 | 64.5 | 44.2 | 30.7 | 28.8 | 22.2 | 23.5 |
| NV | 70.0 | 73.1 | 39.0 | 53.4 | 13 | 56.3 | 42.6 | 30.1 | 26.5 | 22.3 | 19.7 |
| NH | 77.0 | 80.6 | 41.3 | 51.2 | 17 | 61.6 | 51.5 | 29.6 | 29.0 | 18.4 | 17.7 |
| NJ | 72.6 | 75.5 | 37.9 | 50.2 | 22 | 53.7 | 41.4 | 29.9 | 27.6 | 19.5 | 19.9 |
| NM | 67.2 | 71.6 | 36.0 | 50.3 | 21 | 44.7 | 36.7 | 28.6 | 25.4 | 19.2 | 19.2 |
| NY | 69.7 | 73.3 | 32.3 | 44.1 | 40 | 49.4 | 36.3 | 25.1 | 22.1 | 15.6 | 15.9 |
| NC | 68.5 | 73.2 | 32.9 | 44.9 | 38 | 47.8 | 36.5 | 23.3 | 22.1 | 14.1 | 14.6 |
| ND | 80.2 | 82.9 | 52.2 | 63.0 | 2 | 71.3 | 54.5 | 37.4 | 42.9 | 31.4 | 29.6 |
| OH | 70.1 | 74.9 | 33.7 | 45.0 | 37 | 49.9 | 35.3 | 24.9 | 24.4 | 18.4 | 18.0 |

*(continued)*

Table 2.3 *Employment–Population Ratio (aka Employment Rate) of Noninstitutional Working-Age (Ages 18–64) Civilians, by Location and Disability Status (continued)*

| Location | Total | Disability Status | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Disability Type | | | | | |
| | | No Disability | Disability | Relative Rate[a] | Rank by Relative Rate | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| OK | 69.6 | 75.2 | 38.4 | 51.1 | 18 | 51.3 | 39.9 | 28.5 | 25.2 | 17.1 | 16.9 |
| OR | 69.2 | 73.5 | 36.1 | 49.1 | 27 | 46.6 | 39.1 | 27.4 | 26.8 | 18.4 | 19.9 |
| PA | 70.7 | 75.1 | 34.3 | 45.7 | 35 | 53.6 | 36.1 | 24.1 | 23.9 | 15.9 | 16.8 |
| RI | 71.8 | 76.2 | 34.8 | 45.7 | 36 | 58.6 | 42.0 | 26.3 | 25.2 | 21.7 | 19.5 |
| SC | 66.1 | 71.3 | 29.4 | 41.2 | 46 | 44.3 | 32.0 | 20.6 | 19.4 | 12.2 | 12.2 |
| SD | 77.3 | 80.4 | 46.7 | 58.1 | 4 | 66.4 | 52.2 | 34.1 | 34.2 | 19.4 | 22.7 |
| TN | 67.4 | 73.2 | 30.4 | 41.5 | 45 | 43.7 | 31.1 | 22.0 | 19.1 | 13.3 | 12.2 |
| TX | 70.2 | 74.0 | 37.6 | 50.8 | 19 | 52.5 | 41.0 | 28.2 | 25.5 | 18.0 | 16.5 |
| UT | 73.1 | 75.9 | 41.5 | 54.7 | 9 | 56.9 | 41.1 | 30.1 | 29.8 | 19.9 | 20.3 |
| VT | 75.7 | 80.0 | 43.0 | 53.8 | 12 | 65.6 | 43.9 | 28.7 | 32.2 | 24.0 | 26.1 |
| VA | 72.8 | 76.8 | 35.2 | 45.8 | 32 | 52.9 | 40.3 | 25.4 | 24.0 | 14.9 | 16.6 |
| WA | 70.9 | 74.8 | 37.8 | 50.5 | 20 | 53.5 | 41.6 | 27.5 | 25.5 | 19.6 | 18.0 |
| WV | 62.7 | 70.4 | 27.4 | 38.9 | 50 | 39.4 | 27.7 | 19.1 | 15.8 | 10.4 | 10.4 |
| WI | 76.1 | 79.7 | 39.9 | 50.1 | 23 | 58.7 | 44.0 | 27.9 | 29.4 | 20.3 | 22.2 |
| WY | 76.5 | 79.3 | 54.3 | 68.5 | 1 | 71.3 | 46.4 | 41.9 | 42.4 | 32.4 | 36.3 |

[a] The relative rate is the employment rate of people with disabilities, as a percentage of the employment rate of people without disabilities; in other words, the employment rate of people with disabilities divided by the employment rate of people without disabilities multiplied by 100.

Table 2.4 *Economic Outcomes for Noninstitutional Working-Age (Ages 18–64) Civilians, by Disability Status and Type*

| Outcome | Total | Disability Status | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Disability Type | | | | | |
| | | No Disability | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| Total civilians aged 18–64 | 191,797,000 | 172,003,000 | 19,794,000 | 4,105,000 | 3,480,000 | 10,161,000 | 8,239,000 | 3,589,000 | 6,853,000 |
| **Educational attainment** | | | | | | | | | |
| Less than 9th grade | 4.5 | 4.0 | 9.0 | 7.9 | 11.6 | 9.5 | 11.7 | 13.2 | 12.4 |
| 9th to 12th grade, no diploma | 8.8 | 8.0 | 16.1 | 12.8 | 17.6 | 16.1 | 19.5 | 16.4 | 17.9 |
| High school graduate (or equivalent) | 27.5 | 26.7 | 34.1 | 33.0 | 32.1 | 34.3 | 34.6 | 33.7 | 35.2 |
| Some college, no degree | 24.8 | 25.0 | 22.9 | 23.9 | 22.1 | 23.0 | 21.0 | 20.9 | 20.1 |
| Associate's degree | 7.8 | 7.9 | 6.4 | 7.5 | 5.9 | 6.6 | 5.2 | 6.1 | 5.5 |
| Bachelor's degree | 17.5 | 18.6 | 7.7 | 9.6 | 7.2 | 7.1 | 5.7 | 6.6 | 6.2 |
| Graduate or professional degree | 9.1 | 9.7 | 3.7 | 5.2 | 3.4 | 3.3 | 2.3 | 3.1 | 2.7 |
| **Labor force outcomes** | | | | | | | | | |
| In the labor force (#) | 147,305,000 | 139,077,000 | 8,228,000 | 2,352,000 | 1,560,000 | 3,108,000 | 2,604,000 | 707,000 | 1,427,000 |
| Labor force participation rate (%) | 76.8 | 80.9 | 41.6 | 57.3 | 44.8 | 30.6 | 31.6 | 19.7 | 20.8 |
| Employed (#) | 134,327,000 | 127,478,000 | 6,849,000 | 2,076,000 | 1,308,000 | 2,585,000 | 1,956,000 | 583,000 | 1,121,000 |
| Employment–population ratio (%) | 70.0 | 74.1 | 34.6 | 50.6 | 37.6 | 25.4 | 23.7 | 16.2 | 16.4 |
| Unemployed (#) | 12,978,000 | 11,599,000 | 1,379,000 | 275,000 | 252,000 | 523,000 | 647,000 | 125,000 | 306,000 |

*(continued)*

Table 2.4 *Economic Outcomes for Noninstitutional Working-Age (Ages 18–64) Civilians, by Disability Status and Type (continued)*

| Outcome | Total | Disability Status | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Disability Type | | | | | |
| | | No Disability | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| Unemployment rate (% of labor force) | 8.8 | 8.3 | 16.8 | 11.7 | 16.2 | 16.8 | 24.9 | 17.5 | 21.4 |
| Not in labor force | 44,492,000 | 32,926,000 | 11,566,000 | 1,753,000 | 1,920,000 | 7,053,000 | 5,635,000 | 2,882,000 | 5,426,000 |
| Percent not in labor force (%) | 23.2 | 19.1 | 58.4 | 42.7 | 55.2 | 69.4 | 68.4 | 80.3 | 79.2 |
| **Labor market attachment** | | | | | | | | | |
| Full-time, full-year (FTFY) rate (% of workers) | 63.7 | 64.5 | 49.3 | 60.9 | 52.5 | 47.9 | 33.4 | 39.9 | 32.0 |
| Part-time, full-year (PTFY) rate (% of workers) | 10.2 | 10.0 | 12.7 | 9.7 | 12.3 | 12.6 | 16.6 | 14.8 | 19.0 |
| Full-time, part-year (FTPY) rate (% of workers) | 14.1 | 13.8 | 19.8 | 17.3 | 19.2 | 21.8 | 22.5 | 24.2 | 22.1 |
| Part-time, part-year (PTPY) rate (% of workers) | 12.0 | 11.6 | 18.2 | 12.1 | 16.0 | 17.8 | 27.5 | 21.1 | 26.8 |
| Median annual hours of full-year workers (hours) | 2,102 | 2,106 | 2,019 | 2,130 | 2,042 | 2,001 | 1,853 | 1,922 | 1,778 |
| **Earnings from work** | | | | | | | | | |
| Median annual earnings of FTFY workers ($) | 40,305 | 40,305 | 34,137 | 39,623 | 30,938 | 33,001 | 28,876 | 34,259 | 30,479 |
| Median annual earnings/annual hours of FTFY workers ($) | 18.18 | 18.26 | 15.49 | 17.65 | 14.34 | 15.17 | 13.16 | 15.39 | 14.60 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Income** | | | | | | | | | |
| Median personal income ($) | 24,183 | 25,782 | 11,344 | 19,182 | 11,023 | 10,973 | 8,766 | 9,694 | 9,008 |
| Median family income per capita ($) | 21,210 | 21,916 | 15,064 | 18,924 | 13,106 | 14,180 | 12,801 | 13,589 | 13,401 |
| Median household income per capita ($) | 22,331 | 23,204 | 14,799 | 18,868 | 13,200 | 13,771 | 12,495 | 13,038 | 12,788 |
| Poverty rate (%) | 15.6 | 13.9 | 30.0 | 22.1 | 33.2 | 31.4 | 37.8 | 35.5 | 35.1 |
| **Program participation** | | | | | | | | | |
| Social Security disability programs—Ages 18–61 (%) | 4.7 | 1.6 | 31.7 | 19.7 | 28.8 | 38.2 | 42.2 | 49.1 | 50.0 |
| Supplemental Security Income—Ages 18–61 (%) | 2.2 | 0.4 | 17.8 | 10.9 | 16.9 | 20.3 | 25.1 | 27.1 | 28.8 |
| Old-Age, Survivors, Disability Insurance—Ages 18–61 (%) | 3.0 | 1.2 | 18.5 | 12.0 | 16.5 | 23.6 | 23.0 | 29.3 | 28.5 |
| Other programs (%) | 15.3 | 11.1 | 51.4 | 39.5 | 48.0 | 59.2 | 63.2 | 70.4 | 70.4 |

individuals with disabilities who begin college are more likely to drop out without a degree. By comparing the percent with "some college, no degree" to the total percent with some college, we estimate that the noncompletion rate of college is 56% for persons with disabilities, compared to 40% among persons without disabilities. These differences in educational attainment are present across disability types, and are largest for those with cognitive disabilities and smallest for those with hearing impairments. This could perhaps reflect that educational accommodations may be less obvious for persons with cognitive disabilities.

The second panel of Table 2.4 examines detailed labor force status. While Tables 2.2 and 2.3 examine the employment rate, it is also important to examine other measures of labor force status to understand whether the lower employment rates for persons with disabilities reflect greater difficulties finding employment, lower rates of participation, or both. The first labor force measure we examine in Table 2.4 is the labor force participation rate, which is defined as the percent of the population that is either working or actively looking for work (i.e., wants to work). The labor force participation rate for persons with disabilities is 41.6%—about half the rate of 80% for the population without disabilities, suggesting that a significant portion of the lower employment rate for individuals with disabilities can be explained by lower participation rates. At the same time, however, we find that individuals with disabilities also have higher rates of unemployment. The unemployment rate is defined as the percent of the labor force (those working or actively looking for work) who are not currently working. The rate for individuals with disabilities of 16.8% is twice the rate among individuals without disabilities of 8.3%.

There are several noticeable differences in labor force status by the individual's type of disability. First, individuals with hearing impairments have both the highest participation rate (57.3%) and the lowest unemployment rate (11.7%). Second, while individuals with cognitive disabilities have the highest unemployment rate (24.9%), their participation rate is much higher than individuals with other disabilities like self-care and independent living. This suggests that among individuals who want to work, individuals with cognitive disabilities have a relatively harder time gaining/keeping employment.

We next examine the degree of involvement or attachment to the labor force, among workers. We find that workers with disabilities are much more likely than workers without disabilities to be employed part-time, only for part of the year, or both. About 65% of workers without disabilities, but only 49% of workers without disabilities are full-time, full-year workers. An additional 20% of workers with disabilities do work full time but only for part of the year. The remainder of workers with disabilities work part time for the full year (13%) or part time for part of the year (18%). These differences in participation intensity highlight that there is a great degree of heterogeneity among workers. The reasons for the greater frequency of part-time and part-year work could reflect a number of factors. It could be because workers with disabilities are limited in their labor supply due their functional limitations. It could reflect differences in skills and qualifications. Some workers could also be limiting their hours so that their earnings remain below the level at which they lose eligibility for SSDI or Supplemental Security Income (SSI), and the Medicare or Medicaid coverage that comes along with SSDI and SSI, respectively.[7] In the next panel, we examine earnings from work for full-time, full-year workers, measured both as total earnings and as the average hourly wage. We focus on full-time workers despite the fact that there is considerable amount of part-time work so that we can isolate the differences in earnings due to differences in wages rather than hours of work. Median earnings for workers with disabilities, $34,000, are about 15% lower than that for workers without disabilities, $40,000. A similar gap exists in the hourly wage. In addition, as with other outcomes, we find differences by disability type. Workers

with hearing disabilities have wages that are closest to those of individuals without disabilities, while workers with cognitive and vision disabilities have the lowest wages. It is important to note that the difference in earnings could reflect a number of factors: (1) workers with disabilities could choose occupations or industries with lower levels of compensation, (2) workers in lower paid jobs may be more likely to become disabled, (3) workers with disabilities may get paid less at the same jobs either due to lower productivity or discrimination.

Of course individuals with disabilities may compensate for lower labor earnings with other sources of income, from public and private insurance, investments, or family support. In the next panel, we examine the extent to which this occurs by examining various measures of total income. The first row shows that the median personal income for individuals with disabilities is about $11,000, less than half the median income for individuals without disabilities. To examine the extent to which persons with disabilities compensate by additional income from other family members, we examine the median family income per capita. Family income includes the income of all related persons living in the same home (spouses, parents, and children) and if families share resources, it may be a better measure of well-being. We calculate the per-capita amount to control for the fact that some families are made up of more individuals than others. The income gap between individuals with and without disabilities is smaller when we use family income per capita as our measure, suggesting that family members of individuals with disabilities have greater income than family members of individuals without disabilities. Nevertheless, the poverty rate among individuals with disabilities, which is a measure based on family income, is 30%, more than twice the rate of 13.9% of individuals without disabilities.

Lastly, Table 2.4 examines income from public programs. We focus on the population ages 18 to 61 rather than 18 to 64 to exclude retirement income from Social Security. A majority of individuals with disabilities receive income from public programs. The largest source is SSDI, providing income for 32% of individuals with disabilities. To receive income from SSDI, individuals must have worked and paid Social Security taxes for 40 quarters (10 years). In addition, they must pass a stringent disability screen, essentially proving that their disability leaves them unable to work. Payment levels are based on a progressive formula which is a function of their prior earnings and the number of dependents. In 2012, the estimated average monthly payment across all disabled workers was $1,111; 18.5% of individuals receive income from the survivor's insurance from Social Security, and 17.8% receive income from the SSI program. Unlike SSDI, receipt of SSI is not contingent on one's employment history, though it does require passing the same stringent disability screen. SSI receipt is limited to individuals with income and assets below some threshold amount. In 2012, individuals living independently were eligible for SSI if their monthly income was below $698 and their countable assets were below $2,000. Payment levels are fixed, though they are higher in some states which supplement the federal payment. In 2011, monthly SSI payments for a nonaged nonblind person with a disability living in the community varied from $698 in Arizona and other states without state supplements to $854 in California.

Poverty adds to the complexity of designing employment services and educational programs for people with disabilities. Persons with disabilities living in families with poverty-level income may lack certain formal and informal supports, such as access to transportation or expensive assistive devices. As mentioned above, the poverty rate among individuals with disabilities is more than twice the poverty rate of individuals without disabilities (30% compared to 13.9%). It also varies considerably by disability type, ranging from 22.1% for those with hearing difficulties to 37.8% for those with

cognitive difficulties. Table 2.5 highlights the variation in poverty rates across the states, with the *relative* poverty rate being lowest in Mississippi—where the poverty rate of people with disabilities is 177.3% of (or a bit less than two times) the poverty rate among people without disabilities—and the highest being in New Jersey—where the poverty rate of people with disabilities is 257.6% of (or more than two and a half times) the poverty rate among people without disabilities.

## OCCUPATIONAL AND INDUSTRIAL COMPOSITION OF WORKERS WITH DISABILITIES

It is possible that part of the difference in earnings observed in Table 2.4 between workers with and without disabilities could be due to differences in the type of job. To assess this potential explanation, in Table 2.6, we tabulate the industrial composition and sector of workers with and without disabilities. The data do not reveal any large differences in the industries in which workers with and without disabilities are employed. The industry employing the largest number of workers is the same among workers with and without disabilities—educational, health care, and social assistance services, employing about 22% of workers. The industries with the largest differences are finance, insurance, and real estate, where these industries employ 7% of workers without disabilities and 5% of workers without disabilities, and retail trade, which employs 12.7% of workers with disabilities and 11.2% of workers without disabilities.

The magnitude of differences is similar when we examine job sector—private versus public sector and self-employment. A slightly smaller share of workers with disabilities work in the private sector—74% versus 75% and a slightly greater percentage are self-employed—10.4% versus 9.6%. Interestingly, workers with disabilities are slightly more likely to be working for the federal government than workers without disabilities (21% vs. 17% ) and less likely to be working at the local government level (47% vs. 52%).

## PROGRAM AND POLICY IMPLICATIONS

The patterns of heterogeneity in employment rates in terms of disability, demographics, education, and state of residence are consistent with and amplify many of the prominent programmatic and policy issues related to disability and employment. The lowest employment rates are among those with self-care and independent living disabilities who are likely to be the most severely disabled within the population. It has long been recognized that these individuals often need employment-related transportation supports and on-the-job personal assistance services (PAS) if they are to be more engaged in the labor market. Transportation is often a barrier to employment for persons with more severe disabilities regardless of where they live. In many communities, public transportation is nonexistent, inaccessible to people with disabilities, or so underdeveloped that it cannot get anyone, disabled or not, to job sites in a timely manner. Working out the complexities of providing on-the-job PAS has been recognized as a strategy that could be central to getting tens of thousands of people with more severe disabilities employed (Turner, Revell, & Brooke, 2001). State Medicaid programs can now offer PAS at work as well as at home to help people with disabilities in order to obtain or retain employment and this can include assistance with transportation to and from work (Dowler, Solvieva, & Walls, 2011; Ellison, Glazier, O'Connell, Norton, & Himmelstein, 2010). Indeed, one could assume that a meaningful proportion of the 314,541 working-age adults with self-care disabilities who are not working and a meaningful proportion

Table 2.5 *Poverty Rate of Noninstitutional Working-Age (Ages 18–64) Civilians, by Location and Disability Status*

| Location | Total | Disability Status | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | No Disability | Disability | Relative Rate[a] | Rank by Relative Rate | Disability Type | | | | | | |
| | | | | | | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living | |
| **United States** | **15.6** | **13.9** | **30.0** | **–** | **–** | **22.1** | **33.2** | **31.4** | **37.8** | **35.5** | **35.1** | |
| AL | 18.3 | 15.9 | 32.1 | 201.9 | 32 | 25.3 | 33.6 | 33.5 | 38.8 | 35.4 | 35.2 | |
| AK | 10.2 | 9.2 | 17.8 | 193.5 | 41 | 13.6 | 19.6 | 17.3 | 27.6 | 27.6 | 27.6 | |
| AZ | 17.5 | 16.1 | 29.7 | 184.5 | 46 | 21.6 | 32.6 | 30.0 | 37.8 | 36.4 | 34.4 | |
| AR | 19.1 | 17.0 | 30.3 | 178.2 | 50 | 24.3 | 33.3 | 30.7 | 38.3 | 34.4 | 35.7 | |
| CA | 15.1 | 13.9 | 28.0 | 201.4 | 33 | 22.1 | 30.0 | 29.3 | 34.0 | 32.3 | 31.6 | |
| CO | 13.7 | 12.4 | 27.3 | 220.2 | 21 | 18.9 | 30.4 | 30.1 | 35.4 | 37.4 | 36.1 | |
| CT | 12.3 | 10.8 | 27.6 | 255.6 | 2 | 19.5 | 32.3 | 28.6 | 37.4 | 33.2 | 34.4 | |
| DE | 13.3 | 12.1 | 23.3 | 192.6 | 42 | 18.8 | 26.4 | 23.0 | 29.8 | 27.2 | 27.7 | |
| DC | 22.4 | 20.2 | 43.9 | 217.3 | 24 | 44.5 | 52.2 | 41.2 | 53.1 | 53.4 | 46.9 | |
| FL | 16.3 | 14.8 | 29.3 | 198.0 | 36 | 23.4 | 33.0 | 30.1 | 35.7 | 33.6 | 32.9 | |
| GA | 17.5 | 15.9 | 31.5 | 198.1 | 35 | 24.6 | 35.1 | 33.8 | 38.3 | 35.8 | 34.9 | |
| HI | 11.6 | 10.4 | 26.0 | 250.0 | 5 | 22.3 | 26.9 | 27.1 | 34.8 | 36.0 | 30.7 | |
| ID | 16.1 | 14.6 | 28.4 | 194.5 | 39 | 16.2 | 25.8 | 30.7 | 37.7 | 37.8 | 34.4 | |
| IL | 14.0 | 12.7 | 29.0 | 228.3 | 16 | 20.9 | 33.0 | 30.0 | 38.3 | 35.7 | 35.2 | |

*(continued)*

Table 2.5 *Poverty Rate of Noninstitutional Working-Age (Ages 18–64) Civilians, by Location and Disability Status (continued)*

| Location | Total | Disability Status | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Disability Type | | | | | |
| | | No Disability | Disability | Relative Rate[a] | Rank by Relative Rate | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| IN | 16.2 | 14.4 | 30.4 | 211.1 | 26 | 22.0 | 32.9 | 31.2 | 39.2 | 35.0 | 35.3 |
| IA | 14.4 | 12.9 | 28.1 | 217.8 | 23 | 16.8 | 27.5 | 29.3 | 37.6 | 37.5 | 36.0 |
| KS | 14.4 | 12.7 | 28.5 | 224.4 | 18 | 19.1 | 31.0 | 29.4 | 38.6 | 33.4 | 37.7 |
| KY | 19.4 | 16.6 | 34.2 | 206.0 | 30 | 26.9 | 39.7 | 35.6 | 41.0 | 37.5 | 39.5 |
| LA | 18.5 | 16.7 | 30.0 | 179.6 | 49 | 21.6 | 33.4 | 31.8 | 37.7 | 36.2 | 35.2 |
| ME | 14.6 | 12.3 | 29.5 | 239.8 | 10 | 19.6 | 24.5 | 32.0 | 38.3 | 36.0 | 37.1 |
| MD | 11.0 | 9.7 | 24.2 | 249.5 | 6 | 15.4 | 26.4 | 25.0 | 32.2 | 30.9 | 31.0 |
| MA | 13.7 | 12.1 | 30.7 | 253.7 | 3 | 21.6 | 31.4 | 32.4 | 38.9 | 36.7 | 36.8 |
| MI | 17.0 | 14.9 | 32.8 | 220.1 | 22 | 22.9 | 37.9 | 34.1 | 40.9 | 37.0 | 38.3 |
| MN | 12.4 | 11.0 | 27.6 | 250.9 | 4 | 16.1 | 33.2 | 30.6 | 36.2 | 36.7 | 33.2 |
| MS | 22.2 | 19.8 | 35.1 | 177.3 | 51 | 26.4 | 38.1 | 35.8 | 41.9 | 39.4 | 39.6 |
| MO | 16.0 | 13.8 | 31.6 | 229.0 | 15 | 21.9 | 35.9 | 32.7 | 41.2 | 38.5 | 38.5 |
| MT | 16.5 | 14.7 | 30.5 | 207.5 | 28 | 17.8 | 32.1 | 33.0 | 40.0 | 34.2 | 36.6 |
| NE | 13.8 | 12.4 | 27.5 | 221.8 | 20 | 17.2 | 33.1 | 31.4 | 39.9 | 39.2 | 34.5 |
| NV | 13.3 | 12.3 | 24.2 | 196.7 | 38 | 17.5 | 25.5 | 24.5 | 32.2 | 30.0 | 28.8 |
| NH | 10.9 | 9.8 | 22.3 | 227.6 | 17 | 14.0 | 18.2 | 24.7 | 31.7 | 31.1 | 32.6 |
| NJ | 10.3 | 9.2 | 23.7 | 257.6 | 1 | 17.1 | 27.7 | 25.3 | 30.4 | 30.4 | 30.5 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| NM | 18.5 | 16.8 | 30.9 | 183.9 | 48 | 26.2 | 33.6 | 31.2 | 37.9 | 33.1 | 35.7 |
| NY | 15.4 | 13.8 | 31.8 | 230.4 | 14 | 24.1 | 34.4 | 33.3 | 39.9 | 36.7 | 38.1 |
| NC | 17.3 | 15.6 | 29.9 | 191.7 | 44 | 22.7 | 33.4 | 31.1 | 36.4 | 37.0 | 34.3 |
| ND | 14.1 | 13.1 | 24.7 | 188.5 | 45 | 10.4 | 22.3 | 28.4 | 35.7 | 33.9 | 35.0 |
| OH | 16.3 | 14.0 | 33.8 | 241.4 | 8 | 23.6 | 38.4 | 35.1 | 42.9 | 38.2 | 38.6 |
| OK | 17.8 | 15.6 | 30.0 | 192.3 | 43 | 24.0 | 34.5 | 29.8 | 39.3 | 34.4 | 35.8 |
| OR | 16.3 | 14.4 | 30.8 | 213.9 | 25 | 22.9 | 34.1 | 32.1 | 38.8 | 34.7 | 35.3 |
| PA | 15.1 | 13.2 | 30.9 | 234.1 | 11 | 20.4 | 33.0 | 32.7 | 39.3 | 36.5 | 36.6 |
| RI | 15.9 | 14.0 | 31.4 | 224.3 | 19 | 20.3 | 34.3 | 31.9 | 40.4 | 37.6 | 39.2 |
| SC | 18.6 | 16.9 | 31.1 | 184.0 | 47 | 24.7 | 36.9 | 32.3 | 37.2 | 34.6 | 33.7 |
| SD | 16.3 | 14.8 | 30.7 | 207.4 | 29 | 18.4 | 37.4 | 30.0 | 42.5 | 37.6 | 35.7 |
| TN | 17.8 | 15.5 | 32.5 | 209.7 | 27 | 26.1 | 36.0 | 34.0 | 39.2 | 37.5 | 36.6 |
| TX | 17.1 | 15.6 | 30.2 | 193.6 | 40 | 24.2 | 34.1 | 31.4 | 37.7 | 35.2 | 35.3 |
| UT | 13.2 | 12.3 | 24.3 | 197.6 | 37 | 17.7 | 26.6 | 24.8 | 34.1 | 31.6 | 30.0 |
| VT | 15.8 | 13.7 | 31.9 | 232.8 | 12 | 17.7 | 30.1 | 33.2 | 44.9 | 35.2 | 36.9 |
| VA | 13.0 | 11.4 | 28.2 | 247.4 | 7 | 18.2 | 29.2 | 32.0 | 35.4 | 41.4 | 30.2 |
| WA | 13.6 | 11.9 | 28.7 | 241.2 | 9 | 19.1 | 30.6 | 29.7 | 38.6 | 34.7 | 35.4 |
| WV | 19.5 | 16.6 | 33.2 | 200.0 | 34 | 26.3 | 40.2 | 33.3 | 42.7 | 37.4 | 38.8 |
| WI | 14.0 | 12.5 | 29.0 | 232.0 | 13 | 19.9 | 33.4 | 30.6 | 38.3 | 34.7 | 34.7 |
| WY | 12.4 | 11.1 | 22.8 | 205.4 | 31 | 12.4 | 27.7 | 24.7 | 31.6 | 24.6 | 31.8 |

[a]The relative rate is the poverty rate of people with disabilities, as a percentage of the poverty rate of people without disabilities; in other words, the poverty rate of people with disabilities divided by the poverty rate of people without disabilities multiplied by 100.

Table 2.6 *Occupations, Industries, and Sector of Noninstitutional Working-Age (Ages 18–64) Civilians Workers, by Disability Status and Type*

| Occupation/Industry | Disability Status | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Disability Type | | | | | |
| | No Disability | Disability | Hearing | Vision | Ambulatory | Cognitive | Self-Care | Independent Living |
| Total | 127,494,334 | 6,826,246 | 2,062,466 | 1,304,721 | 2,597,912 | 1,934,717 | 593,162 | 1,114,982 |
| **Occupation** | | | | | | | | |
| Management, business, science, and arts occupations | 10.1 | 1.1 | 6.7 | 7.9 | 6.2 | 6.8 | 5.6 | 6.8 |
| Service occupations | 7.7 | 7.6 | 8.2 | 6.5 | 8.7 | 8.3 | 10.1 | 6.9 |
| Sales and office occupations | 8.1 | 8.1 | 7.7 | 6.3 | 7.5 | 8.4 | 7.9 | 7.4 |
| Natural resources, construction, and maintenance occupations | 2.0 | 2.0 | 2.0 | 2.8 | 2.2 | 1.7 | 1.9 | 1.8 |
| Production, transportation, and material moving occupations | 5.1 | 5.0 | 6.5 | 7.6 | 6.3 | 5.8 | 7.4 | 6.9 |
| Code classification is not applicable | 67.1 | 76.2 | 68.9 | 68.9 | 69.1 | 69.0 | 67.1 | 70.2 |
| **Industry** | | | | | | | | |
| Agriculture, forestry, fishing and hunting, and mining | 1.8 | 2.1 | 3.0 | 2.2 | 1.8 | 1.7 | 2.0 | 1.5 |
| Construction | 6.9 | 7.1 | 9.5 | 7.8 | 6.1 | 6.2 | 6.3 | 5.0 |
| Manufacturing | 10.9 | 11.6 | 15.0 | 11.3 | 10.2 | 9.9 | 9.9 | 10.6 |
| Wholesale trade | 3.0 | 2.5 | 3.1 | 2.7 | 2.4 | 2.2 | 2.7 | 2.1 |
| Retail trade | 11.2 | 12.7 | 11.0 | 12.8 | 12.3 | 14.9 | 12.8 | 13.6 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Transportation and warehousing, and utilities | 5.1 | 5.6 | 7.0 | 5.3 | 5.8 | 4.6 | 5.8 | 4.3 |
| Information | 2.3 | 1.9 | 1.8 | 1.7 | 1.9 | 1.9 | 1.6 | 2.0 |
| Finance and insurance, and real estate and rental and leasing | 7.0 | 5.0 | 4.9 | 4.9 | 5.3 | 4.3 | 4.7 | 4.1 |
| Professional, scientific, and management, and administrative and waste management services | 10.7 | 9.4 | 9.0 | 9.8 | 9.3 | 9.6 | 9.6 | 8.9 |
| Educational services, and health care and social assistance | 22.8 | 22.4 | 17.8 | 21.1 | 25.9 | 22.1 | 25.8 | 27.4 |
| Arts, entertainment, and recreation, and accommodation and food services | 8.7 | 9.1 | 6.8 | 9.9 | 7.6 | 12.7 | 7.9 | 10.5 |
| Other services, except public administration | 4.7 | 5.4 | 5.0 | 5.9 | 5.4 | 6.0 | 5.4 | 5.8 |
| Public administration | 5.0 | 5.2 | 6.2 | 4.6 | 5.9 | 3.8 | 5.6 | 4.2 |
| **Sector** | | | | | | | | |
| Private | 75.4 | 73.8 | 71.9 | 76.5 | 71.3 | 78.2 | 73.5 | 77.7 |
| Public | 15.0 | 15.8 | 16.5 | 13.7 | 18.1 | 12.5 | 17.1 | 13.5 |
| Federal | 17.4 | 21.0 | 24.5 | 19.6 | 21.5 | 19.1 | 22.6 | 18.0 |
| State | 30.7 | 31.6 | 30.4 | 34.3 | 31.0 | 33.4 | 33.0 | 35.5 |
| Local | 51.9 | 47.4 | 45.1 | 46.1 | 47.5 | 47.5 | 44.4 | 46.5 |
| Self-employed | 9.6 | 10.4 | 11.6 | 9.8 | 10.6 | 9.3 | 9.4 | 8.8 |

of the 594,549 working-age adults with independent living disabilities who are also not working could benefit from PAS on the job.

Racial disparities in employment outcomes between African Americans and Whites is even greater for individuals with disabilities than those without disabilities suggesting that African Americans with disabilities are at double jeopardy of poor employment outcomes. This finding from the ACS, a nationally representative sample, is consistent with research on the employment outcomes of African Americans within the state/federal vocational rehabilitation (VR) program. Vocational rehabilitation research has shown racial disparities between Whites and African Americans in terms of acceptance for services (Wilson, Harley, & Alston, 2001), services provided (Wheaton, Wilson, & Brown, 1996; Wilson, Turner, & Jackson, 2002), obtaining employment (Martin, 2010; Olney & Kennedy, 2002; Patterson, Allen, Parnell, Crawford, & Beardall, 2000; Wheaton & Hertzfeld, 2002; Wilson, 2005), and wages earned after successfully obtaining employment (Wilson, 1999).

The rehabilitation community has been proactive in attempting to deal with these racial disparities and Section 21 of Rehabilitation Act Amendments of 1992 was designed to improve rehabilitation research and practice related to racial disparities. It requires the National Institute of Disability and Rehabilitation Research (NIDRR) to reserve 1% of its annual appropriation to make grant awards to minority entities (e.g., historically Black colleges/universities, Hispanic-serving institutions of higher education, and American Indian tribal colleges/universities) for the purpose of conducting research, training, and technical assistance to improve services provided to individuals from minority backgrounds. In addition, the Council on Rehabilitation Education accreditation standards now requires graduate rehabilitation education programs to offer a stand-alone multicultural counseling course. It is unclear whether Section 21 and related changes have reduced racial disparities in employment outcomes. There has been an increase in the number of scholarly articles on diversity topics in mainstream rehabilitation journals (Lewis, Shamburger, Head, Armstrong, & West, 2007) and disparities in service acceptance rates may have improved since the passage of the act (Rosenthal, Wilson, Ferrin, & Frain, 2005). However, many of the studies conducted since Section 21 was passed, including the ones cited above, continue to document persistent racial disparities in employment outcomes within the VR program.

There are good news and bad news regarding educational attainment among people with disabilities. The bad news is that there are great educational disparities between people with and without disabilities. Persons with disabilities are at least two times less likely to receive a high school diploma or obtain a bachelor's or graduate degree than their nondisabled peers. In addition, students with disabilities are more likely to drop out from college. On the other hand, when persons with disabilities do achieve educationally, they seem to benefit in the labor market relatively more than people without disabilities. As seen in Table 2.2, receipt of a bachelor's degree is associated with a 20 percentage point higher employment rate relative to high school graduates, and in related work we have found that it is associated with $21,335 higher median earnings, a 16.7 percentage point lower poverty rate, and a 16.2 percentage point lower rate of receipt of Social Security disability benefits.[8]

The good news from the education findings is that there is the potential for programs and policies to improve employment outcomes for people with disabilities. State/federal VR programs frequently fund college training as a VR service, and research has often found that these services are related to successful VR outcomes both in the short term (Cardoso, Romero, Chan, Dutta, & Rahimi, 2007; Catalano, Pereira, Wuc, Hod, & Chane, 2006; Pack & Szirony, 2009) and in the long term (Berry & Caplan, 2010). In addition, there is a role for programs to increase the retention and graduation of postsecondary students with disabilities. There is a high dropout rate among postsecondary

students with disabilities, even relative to students without disabilities, and it is particularly high for students with cognitive disabilities. Model programs have been implemented and evaluated to provide students with physical disabilities (e.g., Dale, 1995) and learning disabilities (e.g., Allsopp, Minskoff, & Bolt, 2005) the support they need to remain in postsecondary education and complete their degree requirements. For students with psychiatric disabilities, the supported education model (Cook & Solomon, 1993; Hoffman & Mastrianni, 1993; Unger, Pardee, & Shafer, 2000) has been shown to be a promising approach to improve retention and graduation rates. Expansions to these programs could improve long-term employment outcomes by increasing enrollment, retention, and graduation from postsecondary education.

While the statistics in this chapter predominantly focus on comparisons at the national level, rehabilitation counselors or researchers wanting information about their target populations can generate similar statistics at a more local level. The Census Bureau recommends using single-year samples only to generate statistics for locations with more than 65,000 household residents. Three-year pooled data can provide statistics for areas with more than 20,000 household residents, and 5-year pooled samples can provide statistics for locations with less than 20,000 household residents. This information can be used to evaluate local programs in the community and to support decision making on the resources or services needed for the people with disabilities. For instance, data from the ACS can be used to plan for the expansion of independent living services to localities where there is an unmet need.

The ACS data products can be accessed across various platforms directly from the Census Bureau website.[9] Some of these platforms are relatively easy to use where others are more convenient for users with some level of statistical and data management experience (e.g., SAS, Stata, SPSS). Users can generate broad data profiles and cross-tabulations on social, economic, housing, and demographic characteristics for selected populations (e.g., people with disabilities) directly on the website. They can also generate tables that rank states (or other geographic areas like counties or congressional districts) across 86 key variables. Interactive, online thematic maps can also be used to display selected statistics across geographic areas. Users wanting to define their samples or statistics more precisely can download large public-use micro data sample files. The ACS provides both concise, nontechnical narrative descriptions and detailed technical descriptions of the data.

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## NOTES

1. The 2009–2011 pooled sample was not yet available when this chapter was written.
2. See the glossary of Houtenville and Ruiz (2011) for more details about the definition of economic variables in the ACS.

3. In contrast, the Census Bureau's Survey of Income and Program Participation (SIPP)—the sources of the often-cited 54 million population-size estimate—uses upwards of 45 questions to identify the population with disabilities.
4. Recent analyses of the questions suggest that a substantial number of working-age SSDI and SSI beneficiaries are not identified by these questions as being a person with a disability.
5. It is also possible for affirmative responses to two or more of these questions.
6. These five states had poverty rates ranging from 12.4% to 15.4% in 2000, when the U.S. poverty rate was 9.3%, and they had poverty rates ranging from 13.4% to 17.3% in 2009, when the U.S. poverty rate was 10.5% (U.S. Census Bureau, 2012).
7. In 2012, Social Security defined "substantial gainful activity" (SGA) as earnings above $1,010 per month. However, the precise earnings limit varies by program, type of disability, living arrangements, and year.
8. The additional calculations were conducted by the authors using the same ACS sample that generated the tables presented in this chapter.
9. http://www.census.gov/acs/www/guidance_for_data_users/guidance_main

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# *Chapter 3: Ticket to Work and Self-Sufficiency Program, and Key Employment and Civil Rights Legislation: Are They Working for People With Disabilities?*

*DEBRA A. HARLEY, DAVID BEACH, KATHY SHEPPARD-JONES, REGINALD J. ALSTON, AND ALLISON FLEMING*

***After reading this chapter, you should be able to:***

1. Identify legislation and national policy relevant to employment participation of people with disabilities.
2. Understand the intent of the Ticket to Work and Self-Sufficiency Program of the Ticket to Work and Work Incentives Improvement Act (TWWIIA).
3. Understand the impact of TWWIIA on the employment outcome of people with disabilities.
4. Identify and understand the various components of the Ticket to Work program.

The concept and benefits of work are highly correlated with quality of life and self-concept. In fact, work consists of complex behavioral, cultural, economic, psychological, and social factors, which are believed to be a central aspect of human life that helps individuals to define themselves in society. For people with disabilities, work takes on added meaning and challenges in such ways that may complicate the interrelationships between coworkers and work productivity (Szymanski & Parker, 2010). People with disabilities have long been adversely affected by unemployment, underemployment, discriminatory hiring practices, and negative attitudes and stereotypes. In an effort to combat poor employment outcomes, numerous legislative mandates have been

passed and policies enacted. Economic theory, environmental factors, and a wide range of policies can significantly affect employment and program participation for individuals with disabilities (O'Leary, Livermore, & Stapleton, 2011).

The purpose of this chapter is to review how the practice of vocational rehabilitation (VR) counseling has facilitated or encouraged employment of people with disabilities since the establishment of a national policy on employment of people with disabilities. In this chapter, we examine the intent and the impact of the Ticket to Work and Self-Sufficiency Program of the Ticket to Work and Work Incentives Improvement Act (TWWIIA) of 1999 (hereafter referred to as the Ticket). An overview of key legislation with implications for employment is also presented to provide a cursory understanding of the purpose and significance of these laws for people with disabilities. In addition, basic information is presented on the Ticket and amendments to its regulations and program components. Labor force characteristics of people with disabilities are provided. A discussion of policy and practices of one state VR agency is presented. The impact of the Ticket and implications are reviewed. Finally, recommendations for future directions are discussed.

## KEY LEGISLATION

In the United States, antidiscrimination legislation for people with disabilities was ushered into existence over time. While the Rehabilitation Act of 1973 is considered as the foundation of the disability rights movement, several earlier pieces of legislation served as the impetus for the movement. In addition, various pieces of legislation incrementally addressed rehabilitation and employment concerns of veterans with disabilities. In this section, the more recent key legislation in relation to employment is highlighted, including the Rehabilitation Act of 1973 with specific emphasis on Sections 501, 502, 503, and 504; the 1986 Amendments to the Rehabilitation Act of 1973; the Americans with Disabilities Act (ADA) of 1990; the Rehabilitation Act Amendments of 1992; the Workforce Investment Act (WIA) and the Rehabilitation Act Amendments of 1998; and Social Security disability legislation.

### *Rehabilitation Act of 1973*

The Rehabilitation Act of 1973 reemphasizes rehabilitation's traditional emphasis on employment goals and mandates federal–state rehabilitation programs to serve people with more severe disabilities before serving those with less severe disabilities. The Act stresses that the consumer should jointly participate with the counselor in the evaluation and service planning process by completing an Individualized Plan of Employment (IPE) (formerly known as the Individualized Written Rehabilitation Program [IWRP]). In addition, the Act mandates consumer involvement in state rehabilitation agency policy development, in which the intent was to use the experience of consumers to improve the effectiveness of state agencies' rehabilitation services (Rubin & Roessler, 2008).

Another key element of the 1973 Act is program evaluation, which called for the development of a set of standards by which the impact of rehabilitation services could be assessed. In essence, this mandate holds state rehabilitation agencies accountable for providing information on the percentage of people with the most severe disabilities being served, the timeliness and adequacy of services provided, the suitability of employment placements and retention, and consumer satisfaction with rehabilitation

services. The Rehabilitation Act of 1973 continued the tradition of providing support for rehabilitation research, and called for special programs emphasizing research with severe disability groups (Fleischer & Zames, 2011; Rubin & Roessler, 2008).

The Rehabilitation Act of 1973 is considered to be the civil rights legislation for people with disabilities because of the provisions found in Sections 501, 502, 503, and 504 (Fleischer & Zames, 2011). Section 501, Affirmative Action in Federal Hiring, mandates nondiscrimination by the federal government in its own hiring practices and requires all federal departments, agencies, and instrumentalities to submit an affirmative action program for the hiring, placement, and advancement of people with disabilities to the U.S. Civil Service Commission (Rubin & Roessler, 2008). Section 502, Accessibility, establishes the Architectural and Transportation Barriers Compliance Board (ATBCB) to enforce accessibility regulations. Section 503, Affirmative Action by Federal Contract Recipients, prohibits discrimination in employment on the basis of physical or mental disabilities and requires affirmative action on the part of all federal contract recipients and their subcontractors who receive annual federal contracts exceeding $10,000. Compliance with Section 503 requires companies to make reasonable modifications in work settings and work facilities to accommodate accessibility of people with disabilities, demonstrate that policies of nondiscrimination are followed in the recruiting, hiring, and promoting of workers, and to have a written affirmative action plan if the contractor with the federal government has 50 or more employees or a federal contract exceeding $50,000. Section 504, Equal Opportunities, prohibits the exclusion, based on disability or otherwise qualified persons with disabilities, from participation in any federal program or activity, or from "any program or activity receiving federal financial assistance" (U.S. Commission on Civil Rights, 1983, p. 49). Section 504 of the Rehabilitation Act creates and extends civil rights to people with disabilities.

### *The 1986 Amendments*

The 1986 Amendments to the Rehabilitation Act of 1973 contain new mandates for advances in technology related to the needs of people with disabilities and the need to either strengthen existing programs or provide new programs directed at increasing the employability of people with disabilities and facilitating their greater participation in everyday life (Rubin & Roessler, 2008). More specifically, this amendment focuses on the need for state rehabilitation agencies to expand the use of rehabilitation engineering services to meet the needs of those with disabilities.

### *The Rehabilitation Act Amendments of 1992*

The 1992 amendments require state rehabilitation agencies to establish Rehabilitation Advisory Councils (RAC) to provide guidance in the development of agency policies and procedures. The functions of the RAC are described in Section 105 of the amendments. The 1992 amendments increase the federal share of funding to 78.7%. The amendments contain numerous tenets for the field of VR, including a restatement of the priority placed on employment outcomes for people with disabilities, a continuing commitment to independent living services, and a strengthening of consumer involvement in the entire rehabilitation process. In addition, the amendments expand access to rehabilitation services for people with disabilities through a reaffirmation of interagency collaboration (Rubin & Roessler, 2008).

### The Workforce Investment Act and the Rehabilitation Act Amendments of 1998

"For the first time, the Rehabilitation Act Amendments were combined with enabling legislation for a number of other major federal workforce and employment programs" (Rubin & Roessler, 2008, p. 78). The one-stop delivery system is the nucleus of the WIA. The one-stop system is based on four principles: (a) universal access, (b) customer choice, (c) service integration, and (d) accountability (Bruyere, Golden, & Cebula, 2010). Although the one-stop shop coordinates programs and services from federally funded vocational training programs in a single organizational entity, the federal–state VR program retains its independent status through Title IV of the WIA.

### Social Security Disability Legislation

For those persons who receive Social Security Disability Insurance (SSDI), a low percentage who are deemed as feasible for VR leave the SSDI rolls and return to work (Office of Disability Employment Policy, 2012). Research suggests that the reasons for the low percentage of SSDI recipients who return to work is due to lack of incentives for employment, low motivation, fear of losing financial and medical benefits if suspected of having potential to work, and uncertainty of the ability to hold a job for an extended period of time (Burkhauser & Houtenville, 2010). In response to these reasons and in an attempt to reduce disincentives for SSDI recipients, the Social Security Administration (SSA) developed specific work incentives under the Social Security Disability Amendments of 1980, 1986, 1989, and 1990, and through the TWWIIA of 1999. Those incentives include (a) a trial work period (TWP), (b) impairment-related work expenses, (c) an extended period of eligibility, and (d) continuation of Medicare coverage. In addition, the SSA made available financial support and Medicaid through Supplemental Security Income (SSI) for people with disabilities with low incomes and little or no coverage through SSDI. Both SSDI and SSI have many of the same work incentives to encourage recipients to try and return to work as soon as feasible (Rubin & Roessler, 2008; Social Security Administration, 2012a). A description of relevant Social Security disability legislation and benefits is presented in Table 3.1.

### The Americans with Disabilities Act of 1990

The ADA stipulates major mandates pertaining to nondiscrimination and reasonable accommodation of people with disabilities. The ADA contains five titles, which prohibits discrimination on the basis of disability in employment (Title I), public services (Title II), public accommodation (Title III), and telecommunications (Title IV). Title V contains miscellaneous provisions, for example, access to historic sites and hiring practices of the federal government (Rubin & Roessler, 2008). The goal of the ADA of 1990 employment provisions is to provide equal rights to people with disabilities and thereby increase their labor market opportunities (Bruyere et al., 2010). Title I of the ADA prohibits employers from discriminating against a qualified person with a disability because of the disability in such aspects of employment as hiring, job training, promotion, or the discharge process. The explicit language of Title I defines the terms essential functions of the job, reasonable accommodation, and undue hardship in regard to the job application process, contractual relationships, and enforcement of Title I (Rubin & Roessler, 2008).

**Table 3.1** *Relevant Social Security Disability Legislation and Benefits*

| **Social Security Disability Insurance Program (Title II of Social Security Act of 1954)** |
|---|
| Provide eligible persons with disabilities with monthly income benefits and Medicare insurance |
| Define a disable adult child |
| **Social Security Act Amendments of 1956** |
| Authorize Social Security disability allowances for individuals with disabilities |
| Provide disability income allowances for any permanently disabled injured person age 50 or older who was considered incapable of returning to competitive employment |
| **Social Security Act Amendments of 1965** |
| Social Security becomes directly involved with vocational rehabilitation |
| Made clear that cash benefits are not the sole objective of the disability insurance program |
| Mandate SSDI funds to cover the cost of rehabilitation selected disability beneficiaries through state rehabilitation agency services |
| **Social Security Act Amendments of 1972** |
| Make beneficiaries with disabilities eligible for Medicare health coverage through a waiting period of 29 months after application for disability benefits |
| Make available SSI for individuals with disabilities with low incomes and little or no coverage through SSDI (Title XVI) |
| **Social Security Act Amendments of 1980, 1986, 1989, 1990** |
| Reduce disincentive for SSDI beneficiaries and encourage employment participation by developing specific work incentives |
| Work incentives include a trial work period, impairment-related work expenses, an extended period of eligibility, and continuation of Medicare coverage |
| **Workforce Investment Act of 1998** |
| Consolidate, coordinate, and improve employment, training, literacy, and vocational rehabilitation programs |
| Support development of statewide and local workforce investment systems to increase participants' levels of employment, job retention, and earnings |
| Authorize development of a statewide system of employment services and a strategy of accountability to ensure that customer needs are met through a network of one-stop centers in collaboration with state Departments of Labor |
| **Ticket to Work and Work Incentives Improvement Act of 1999** |
| Provide beneficiaries and recipients of SSI and SSDI incentives and supports to prepare for, attach to, or advance in work |
| Remove barriers to employment for individuals with disabilities who receive SSI and SSDI |
| Provisions include Ticket to Work and Self-Sufficiency, Work Incentives Outcomes, Expansion of Health Care, and Demonstration Projects/Studies |

Adapted from Bruyere, Golden, & Cebula (2010) and Rubin & Roessler (2008).

Under the ADA, a qualified person with a disability is one who can perform the essential functions of the job held or desired with or without reasonable accommodations (Dispenza, 2002). Title I of the ADA states three reasons why a job function is considered as essential. The function may be essential (a) "because the reason the position exists is to perform that function," (b) "because of the limited number of employees available among whom the performance of that job function can be distributed," and (c) "the function may be highly specialized so that the incumbent in the position is hired for his or her expertise or ability to perform the particular function" (U.S. EEOC, 1996, p. B-19). It is important to note that even if a job applicant with a disability can perform the essential functions of the job, an employer is not required to hire that individual if there is another individual applying for the job with or without a disability who is more highly qualified. Therefore, an individual with a disability "who is not hired for a position due to an inability to meet the standard of performance for the essential functions set by the employer is not viewed as a victim of discrimination by the ADA" (Rubin & Roessler, 2008, p. 109).

Reasonable accommodations refer to "any change in the work environment or in the way things are customarily done that enable an individual with a disability to enjoy equal employment opportunities" (U.S. EEOC, 1999, pp. 2–3), unless doing so would cause undue hardship: (a) The concept of reasonable accommodations applies to both part-time and full-time employees with a disability, (b) the individual with a disability must inform the employer that an accommodation is needed so that the employer may ascertain that existing workplace barriers can be addressed, and (c) when the disability and/or need for accommodation are not obvious, the employer may ask for reasonable documentation about the individual's disability and functional limitations (EEOC, 1999). The expectation under the ADA is that employers are to provide reasonable accommodations that are necessary for employees with disabilities to enjoy the benefits and privileges of employment to an extent equal to that "enjoyed by similarly-situated employees without disabilities" (EEOC, 1999, p. 13). Refusal by an employer to make reasonable accommodations for a qualified job applicant with a disability that results in denial of an employment opportunity constitutes unlawful employment discrimination (Bruyere et al., 2010).

Undue hardship is defined by the ADA as any action that creates "significant difficulty or expense" for an employer related to "the size of the employer, the resources available, and the nature of the operation" (U.S. EEOC, 1992, pp. 111–112). The parameters of difficulty, cost, size, and resources have implications for what is considered a reasonable accommodation, which may vary from one employer to another. In addition, the impact of the accommodation on the operation of the employer that is making the accommodation is also considered as a relevant factor in determining undue hardship (U.S. EEOC, 1996). Although cost may be a significant factor in an employer's ability to make an accommodation, outside funding to cover the cost can reduce the likelihood that an accommodation would create an undue hardship on the employer. Therefore, it is incumbent upon the employers to be aware of the availability of such outside funding resources (Rubin & Roessler, 2008).

## TICKET TO WORK AND WORK INCENTIVE IMPROVEMENT ACT OF 1999

The TWWIIA was designed to assist persons receiving SSDI and SSI to return to work, thereby further relieving SSA of some of its financial obligations under SSDI and SSI (Rubin & Roessler, 2008). The intent of the Ticket was to give beneficiaries more and better options for employment support services, thereby increasing the number of people

who pursue employment and achieve self-sufficiency (Prenovitz, 2012). Individuals who are aged 18 to 64 receiving Social Security disability benefits qualify for the Ticket. Beneficiaries can select any authorized provider of the Employment Network (EN) for rehabilitation services. Participation in the Ticket program is voluntary. Work incentives make it easier for adults with disabilities to work and still receive health care and cash benefits from Social Security. Individuals are able to explore work while still receiving benefits. Once an individual assigns one's Ticket to an EN, the individual is eligible for several work incentives: (a) TWP (SSDI recipients only), (b) expedited reinstatement (EXR) (SSDI and SSI recipients), and (c) protection from medical continuing disability reviews (CDR) (SSDI and SSI recipients) (SSA, 2012a). See Table 3.2 for a description of work incentives.

The Ticket to Work program components consist of the EN, Protection and Advocacy for Beneficiaries of Social Security (PABSS), Social Security Work Incentives, Work Incentives Planning and Assistance (WIPA) Projects, and Work Incentives Seminar Events (WISE). An EN is a qualified Social Security–approved organization or agency that has entered into an agreement with Social Security to provide specialized services such as career counseling, VR, job placement and training, and other types of support to beneficiaries under the Ticket to Work program. Beneficiaries can contact any EN in their area. The beneficiary and EN are required to work together and develop an Individual Work Plan (IWP) that describes the beneficiary's employment goal and outlines the free services and supports the EN will provide to assist the

**Table 3.2** *Work Incentives*

| **Trial Work Period** |
|---|
| Covers a total period of 9 months during which SSDI beneficiaries can try working or running a business without their disability benefits being affected. |
| If work during the trial period does not meet the earnings criteria for SGA, SSDI benefits continue. |
| If the individual is considered to be able to work at the end of the trial work period, cash benefits will automatically continue for 3 more months, after which the individual will still be entitled to an SSDI check in any month in a subsequent 33-month period during which wages are at or below the SGA level. |
| The 36-month period following the 9-month trial work period is referred to as an extended period of eligibility. |
| **Impairment-Related Work Expenses** |
| Comprises items and services needed by the SSDI beneficiary in order to work. |
| In figuring SGA during the trial work period, certain expenses can be deducted from earnings: (a) the cost of the item or service is paid by the person with the disability, (b) the person has not been, nor will be, reimbursed for the expense, (c) the expense enables a person to work, (d) the person, because of a severe physical or mental impairment, needs the item or service for which the expense is incurred in order to work, and (e) the expense is reasonable. |
| **Extended Period of Eligibility** |
| A reentitlement period during which eligibility for monthly SSDI benefits can be reestablished without either a new application for benefits or an application for expedited reinstatement, if work activity ceases or is significantly diminished. |
| **Continuation of Medicare Coverage** |
| For a period of 93 months following the trial work period, during which time a person is engaging in SGA, despite a continuing disability, SSDI beneficiaries can continue to receive Medicare medical insurance coverage. |

Adapted from Rubin & Roessler (2008).

beneficiary to reach that goal. Both the EN and beneficiary can un-sign the Ticket at any time and the beneficiary can take it to another EN. The beneficiary and EN work together until the beneficiary reaches his or her work goal. The EN will provide ongoing support services after the person gets a job if he or she needs help in maintaining the job or getting a better-paying one. At such a time when the beneficiary is earning income at a level that justifies a payment to the EN, the EN applies to the Operations Support Manager (OMS) for payment from Social Security. A notice will be sent when the request for payment has been approved. The payment will then be deposited electronically to the EN's financial institution. The EN is not permitted to charge the beneficiary for any services it provides through the Ticket program (SSA, 2012a). The EN costs stem from five major activities: (a) outreach, (b) intake, (c) initial services, (d) follow-up, and (e) payment tracking. The Ticket is performance based; thus, the EN receives payment when the beneficiary achieves employment-related milestones or outcomes. For example, for an SSDI beneficiary, an EN can receive payment of $25,596 per Ticket holder at a rate of $711 per month for a period of 1 to 36 months, and for an SSI beneficiary $24,540 per Ticket holder at a rate of $409 per month for 1 to 60 months. In Phase I of the Ticket, EN payment per SSDI and SSI Ticket holder is the same amount (i.e., $1,275) for outcomes for milestone 1, 2, 3, and 4. In Phase 2 milestones, there is a slight difference between SSDI and SSI beneficiaries because payment is calculated based on gross earning more than Substantial Gainful Activity (SGA) and the total number of months (up to 11 months for SSDI and 18 for SSI) of participation. Phase 1 and 2 milestones are then calculated together per Ticket holder. Monthly income payments are based on earning more than SGA and federal cash benefits = $0 for up to 36 months for SSDI per Ticket holder and 60 months for SSI, which equals the potential milestone payments (cessi.net/ttw/faqs/index.asp).

Protection and Advocacy (P&A) organizations are publicly funded and provide free legal information and advice to people who have a disability and receive Social Security disability benefits. These organizations provide consultation about receiving VR and employment services that beneficiaries may need in order to secure or regain employment. PABSS also provides legal advocacy efforts and may investigate claims of inadequate services for beneficiaries who aim to return to work.

Social Security Work Incentives are special rules that make it possible for a beneficiary to attempt work while still receiving health care and cash benefits. For those who receive SSDI, cash benefits continue for a specified period of time and are eliminated only when the beneficiary reaches a level of earnings known as SGA through employment. SGA is work that brings in over a certain dollar amount per month. In 2012, that amount was $1,010 for nonblind disabled applicants and $1,690 for blind applicants. In 2013, that amount for nonblind applicants is $1,040 and $1,740 for blind applicants. SGA for blind individuals does not apply to SSI benefits, but for nonblind individuals it applies to Social Security and SSI benefits. If an individual was making more than that amount per month, the SSA presumes that one is not disabled because one is able to engage in competitive employment. In deciding whether an individual is doing SGA, the SSA does not include any income obtained from nonwork sources (e.g., interest, investment, and gifts) (Social Security Administration, 2012b). Individuals who receive Medicare may be able to keep coverage for at least 8.5 years after returning to work. Provision 1619(b) allows SSI and concurrent SSI/SSDI beneficiaries who receive Medicaid and depend on it in order to work to keep that coverage if their annual earnings from work are below state-specified thresholds and they have limited resources. In the case in which a beneficiary's earned income is high enough to disqualify them from coverage under 1619(b), many states allow the purchase of Medicaid coverage at affordable rates through "Buy-In" programs (SSA, 2012a).

WISE provide information to help beneficiaries make the decision to re-enter the workforce or to work for the first time. Various employment service providers, VR, P&A, and ENs discuss services and supports they offer, and former beneficiaries who have used the Ticket to become employed offer testimonies of their success. As of January 2012, all WISE are offered via free Internet-based webinars.

By 2012, more than 17 million beneficiaries have been notified by the SSA concerning their eligibility for participation in the Ticket program. As of December 2011, approximately 12.3 million beneficiaries were eligible to participate in the Ticket program. It is estimated that about 89,000 new beneficiaries become eligible for the Ticket program each month (Social Security Administration, 2012c).

## THE IMPACT OF TWWIIA

In 2002–2004, Ticket to Work (TTW) did not show any effects of the program on employment, earnings, or benefit eligibility. As of 2006, the national TTW participation rate was 1.6% and at the end of 2007, TTW increased the share of beneficiaries who receive employment services to only 2.29%. An additional 27,000 tickets were assigned to ENs between 2007 and 2010, for a total of 49,000 tickets in July of 2010 out of 12.1 million ticket holders (General Accounting Office [GAO], 2011). Prior to the 2008 reforms of TTW, many beneficiaries had little to no choice of ENs. The majority assigned their Tickets to the state VR agencies, and saw no difference in services they received from state agencies before the implementation of TTW (Prenovitz, 2012; Stapleton et al., 2008; Stapleton, Gruman, & Prenovitz, 2009). One explanation for the high rate of Ticket assignment to state agencies can be attributed to barriers experienced by ENs to their participation under the original Ticket regulations. EN providers reported barriers including too small expected payments to generate enough revenue to cover their TTW work, waiting for beneficiaries to qualify for payment, payments not being made in a timely manner, large administrative costs, and burdens of obtaining earnings documentation from beneficiaries who had already found work and were not motivated to provide this information (Prenovitz, 2012; Stapleton et al., 2008).

A breakdown of relationships between individual characteristics and TTW indicates the following:

1. Age is a strong predictor of TTW participation. Younger beneficiaries have a higher participation rate than older ones.
2. Impairment is not a strong predictor of participation, except for those with sensory impairments, who have relatively high participation rates.
3. Those with more than a high school level of education were approximately 3.5 times more likely to participate in TTW than those with less than a high school level of education.
4. SSDI beneficiaries were about one-third as much likely to participate in TTW as SSI-only recipients.
5. Participation rates were higher for those who had been on SSDI rolls from 1 to 15 years than for those on the rolls for less than a year or more than 15 years. Within these extremes, there is little relationship between time on the rolls and the TTW participation rate.
6. Beneficiaries who could perform an array of activities of daily living (ADL) and instrumental activities of daily living (IADL) without assistance were about twice as likely to participate in TTW as those who required assistance with at least one activity.

7. Those with high scores on a mental health battery were more likely to participate than those with low scores.
8. Participation rates for SSDI beneficiaries who had entered their Extended Period of Eligibility (EPE) before their state's TTW rollout year were at least three times as likely to participate in TTW as those who had not.
9. Those more likely to assign their Ticket to an EN include SSI-only recipients, those with low benefits, African Americans, and those with minor children. Those more likely to assign their Ticket to a state VR agency include those in SSA's mental retardation or other nervous system disorder categories, those with high mental health scores, and those requiring assistance in performing at least one daily activity (Stapleton et al., 2009, pp. 21–23).

Livermore and Roche (2011) compared the 2004–2006 National Beneficiary Survey data to Social Security administrative data and followed a cohort of disability beneficiaries participating in the TTW program for several years to assess changes in their service use, health status, employment, and income. They found that about 20% of TTW participants achieved employment at levels that would significantly reduce their disability benefits. Another 40% achieved some employment success, but the remaining 40% reported no earnings during 2003–2005. The use of TTW support services during 2003–2005 was modest. Many participants experienced a significant decrease in their health status across survey rounds, which might have affected their ability to actively participate in TTW and to become employed. In addition, many participants experienced significant employment and income instability. The findings suggest that employment among TTW participants was associated with reduced poverty.

Schimmel and Stapleton (2011) examined the first month of suspension or termination for work (STW) for SSDI and SSI-only beneficiaries as well as the number of months in nonpayment status following suspension or termination for work (NSTW) before their return to the rolls, attainment of the full retirement age, or death in each year from 2002 to 2006. They found that less than 1% of beneficiaries experienced their first STW in each year, but more were in NSTW in at least one month. TTW participants were more likely to have a first STW than nonparticipants, but most of those who had an STW were not TTW participants, reflecting low use of TTW. ENs often failed to file claims for outcome payments during months when their clients were in NSTW.

## A CASE OF ONE STATE'S EXPERIENCE WITH TWWIIA

Although by the end of 2006 national statistics indicated that TTW represented only a small change in the employment services market for SSDI and SSI beneficiaries, in some states the market had changed substantially while remaining largely the same in others. In the Commonwealth of Kentucky, provider participation was approximately 1% for state rehabilitation agencies and payment type was 100% traditional for Phase 2 states. The SSA implemented the Ticket in three phases to the states. That is, the Ticket was phased in on a gradual basis with the program operating in the entire country by January 2004. The SSA distributed the Ticket to states at a rate of 10% per month. Based on TTW participation rates by state, Kentucky ranked in the bottom third of Phase 2 states, ranking above New Hampshire, New Mexico, New Jersey, and North Dakota (Stapleton et al., 2009). The remainder of this section presents the impact of TWWIIA on people with disabilities and state VR agencies in the Commonwealth of Kentucky.

Prior to the passage of TWWIIA, persons receiving Social Security benefits were required to be referred to the state's public VR program. The state typically received a

Table 3.3 *Ticket Options for VR Program and Private Provider*

| VR Program | Private Provider |
|---|---|
| Retains traditional cost reimbursement | Receives EN payment |
| Automatically participate in the Ticket program when they serve an SSI or SSDI consumer | Must register to become an EN |
| Must close the client's case to reassign the Ticket to another EN; the VR consumer may still be eligible for VR services, but because of the closure requirement, will be denied services | Can provide some required services same as VR, but do not have available resources and expertise to provide as comprehensive services as VR can |
| Can be part of multiple employment networks across a given state | Must have an agreement with VR before initiating a referral to the designated state VR agency |
| Depending on the state, may be under an "Order of Selection" | Accepts beneficiary independent of level of severity of disability |
| Must provide reports on beneficiary outcomes when choosing to be paid as an EN | |

letter of referral from the SSA when the individual had been awarded their benefits. The VR program staff was then tasked with attempting to contact the individual and engage them in the VR process. If the benefit recipient chose not to participate in a VR program, the agency was to report this to the SSA, potentially impacting the future benefits of the individual. For those beneficiaries achieving suitable employment, agencies were reimbursed for the cost of the services paid on behalf of the beneficiary by the VR agency.

Concerns related to the low participation and successful employment outcomes of beneficiaries led to criticisms of not only the referral process but also the public VR program. Disability advocates typically focused on the lack of choice given to the beneficiary in his or her attempt to return to work. Beneficiaries not wanting to work with the public VR program would have no opportunity to access rehabilitation or employment services except through the local VR office. Concerns also focused on the high caseload sizes of many VR counselors that could impair their ability to effectively focus adequate attention on beneficiaries, while other private providers had excess service capacity that might better serve these individuals. The VR program was also criticized for only requiring the individual to be employed a minimum of 90 days prior to case closure. Advocates felt that the complexities of the cases of many beneficiaries required longer periods of follow-up to ensure reduced recidivism.

TWWIIA changed the way VR interacted with the Social Security beneficiary, in that the individual could choose to assign their Ticket and bypass the VR program altogether, instead choosing to work with a private provider. If a beneficiary opts to open a case with VR, the agency can either accept the individual's Ticket or request reimbursement directly from SSA. Table 3.3 provides a comparison of options for the Ticket holder between the VR program and a private provider.

### *Positive Aspects of TWWIIA*

The experience of the public VR program with key aspects of TWWIIA has been mixed, at best, but there have been some concepts that have shown significant promise in improving the vocational outcomes of SSI recipients. One such example of a promising program are the WIPA and PABSS programs, which provided critical information

related to work incentives and the potential impact of employment on current and future benefits. PABSS met a critical need by focusing on outreach to Ticket holders to ensure awareness of the availability of work incentives and to dispel myths of the inability to work and maintain benefits. The WIPA program sponsored specially trained professionals to provide information related to how income and asset accrual will specifically impact the benefits of individuals and allow them to make informed choices as to how they will engage the workforce. The potential loss of benefits, especially medical coverage, has long been a barrier to participation in the VR process and these programs provide accurate, objective information.

This program has come under attack from various groups because there is a belief that the WIPA providers were too focused on maximizing the benefits and income of the individual, essentially encouraging them to "park" by maintaining a set amount of income from work that would not require leaving the rolls of Social Security benefits. With the effectiveness of this program in question, Congress refused to reauthorize the WIPA program in 2012. The future of this program and how future work incentives information will be provided to beneficiaries are unclear.

Another positive program emerging from TWWIIA is the Partnership Plus program, which consists of an EN providing postemployment support and services to an individual whose case is closed from VR services. The Partnership Plus program provides a valuable opportunity for an EN and VR program to partner, effectively improving services to the individual with a disability. Consumers of VR services have consistently provided feedback indicating the need for support in the workplace past the 90-day closure period of the public VR program. The Partnership Plus program provides ongoing support services, benefits planning, skill building, additional education/training, job coaching, job retention services, transportation, mentoring, and other services and supports to maintain or advance in employment. Adding to the value of the program is the opportunity for employers to become ENs and receive funds when the beneficiary is employed above SGA for 9 out of 12 months. While the Partnership Plus program has shown great promise, it has yet to yield significant results because of a dearth of ENs. The reasons cited by potential ENs have been related to the significant process and paperwork required to obtain milestone payments, as well as significant delays in receiving payments for services.

## *Challenges*

Several aspects of TWWIIA, initially intending to serve as incentives to utilize the Ticket, have had some negative and unintended consequences for both the beneficiaries and agencies that serve them. The payment process has been criticized as being both process heavy and inefficient. There has been some concern among advocates as to whether beneficiaries can adequately understand the various intricacies of the program and may not have an adequate understanding of the long-term impacts of their decisions regarding their Ticket. Several other negative impacts of TWWIIA in Kentucky are discussed below.

### CDR Review

Another example of a negative impact on agencies and recipients is the incentive to beneficiaries to be protected from the CDR process once the Ticket is assigned. While the delay of the CDR may encourage the beneficiary to assign his or her Ticket, it may not

necessarily motivate the person to return to work. Because the CDR process is so onerous, it has been the experience of this state that many individuals have assigned their Ticket just to avoid the review, but had no intentions to work. Then the requirements to offer this incentive further impact the efficiency of the program due to the requirements of Ticket holders to participate in a yearly Timely Progress Review. These reviews are both time-consuming and costly and often generate similar anxiety as the CDR. If the beneficiary fails this review which is common in the first year of the work plan because of the onerous requirements, the beneficiary faces the possibility of having to have to submit to a CDR. This means that the individual has been told that he or she will not have to complete a CDR because they have assigned a Ticket to either VR or an EN; however, because of common delays in service initiation, the individual may now potentially have to complete this extensive review. This process is inherently unfair and may cause mistrust in providers because of the conflict in what the Ticket holder was told and what actually occurred.

#### Reassigning a Ticket

In some cases, the individual will open a case with VR, but will seek to reassign their Ticket to another EN. Social Security requires that VR must close the individual's case to reassign the Ticket. This process is again inherently unfair, as the VR consumer who is a Ticket holder may still be eligible for VR services and may still benefit greatly from VR services, but because of these requirements, will now effectively be denied services. While the EN may be able to provide some of the required services, in many instances, they do not have the available resources and expertise to provide the comprehensive services VR can provide. So, the individual is forced to decide between reassigning his or her Ticket and risk access to quality services and not reassigning the Ticket and losing access to the EN. Forcing an individual into making this choice is not conducive to providing a coordinated approach to address the various barriers to employment of the beneficiary.

#### Predatory Practices by ENs

A promising practice of TWWIIA was the opportunity for employers to become ENs, providing an incentive for a business to hire a person with a disability and employ them at SGA. This would allow the employer to recover some of the costs of support for the employee and reimburse some of the initial first year salary. In fact, some employers have taken advantage of this opportunity, benefitting both the employer and the Ticket holder. However, the agency has had experiences in which businesses engaged the VR agencies to recruit Ticket holders. The employers were ENs and therefore eligible for benchmark payments for follow-up services. Of concern to the agency is that, shortly after the benchmark payments to the EN were exhausted, the Ticket holder would return to VR and report that he or she had been terminated by the employer for poor job performance. The employer would then return to VR and recruit more Ticket holders.

This has become an incredibly perplexing issue, as the goal of the VR program is to assist individuals in being employed in an integrated setting in a job that is consistent with their skills and abilities. Therefore, when businesses come to the agency seeking to hire individuals with disabilities, there is some responsibility for the agency to explore that relationship. The agency also has the responsibility to assist the business

in understanding the various financial incentives to hire individuals with disabilities, as they serve a vital role in offsetting any costs incurred in the hiring of the individual. The agency also, however, has a responsibility to refer the individual to an employer that will hire them for the added value to their company and not for financial gain. When businesses take advantage of the various financial incentives associated with TWWIIA by terminating the employment of Ticket holders after their payments are exhausted, it can do irreparable harm to the self-esteem of the individual, as well as to the relationship between the individual and the agency. This forces the agency to more thoroughly vet employers seeking to hire persons with disabilities, especially those that specifically request to hire Ticket holders.

### *Overall Impact on the VR Agency*

From the perspective of a VR agency, TWWIIA has had a minimal impact on services provided to SSI/SSDI recipients. The agency continues to serve approximately the same amount of individuals receiving disability benefits. Because of TWWIIA, it became more difficult for the VR agency to receive reimbursements, effectively increasing the work of agency staff to receive the same amount of funds. There are promising initiatives and programs described in the law, but the implementation of these programs has been compromised by either a lack of funding or an ineffective and inefficient process. Other incentives were either misguided or misused to the extent that they were not beneficial to Ticket holders.

## A CRITIQUE OF TWWIIA: INTENT VERSUS OUTCOMES

The TWWIIA in tandem with the ADA "was believed to have finally addressed the most important barriers preventing disability beneficiaries from reaching their employment goals" (O'Leary et al., 2011, p. 1). As stated earlier, the new regulations appear to have had only a modest effect on the overall rate of beneficiary participation in TTW; however, when viewed by the new Ticket assignments by provider and payment type, the impact is greater (Prenovitz, 2012). The 2008 reforms made several changes to make participation in TTW more rewarding for providers. These changes include (a) offering larger payments, (b) making some payments available at lower levels of earnings, and (c) reducing the administrative burden. The revised regulations addressed incentives for providers to maintain a long-term relationship with their beneficiary clients in two significant ways. First, "they substantially increased the monthly payment amount for providers serving SSDI beneficiaries, but shortened their duration from 60 months to thirty-six." Second, "the new Partnership Plus feature created incentives for state VR agencies to provide initial return-to-work services under the pre-TTW payment system and then partner with an EN to provide longer-term supports" (O'Leary et al., 2011, p. 9). According to O'Leary, although longer-term perspectives on employment indicate that many beneficiaries with work-related goals and expectations are successful in attaining employment, many fail to sustain that success for very long. The 2008 reforms to the Ticket are outlined in Table 3.4.

While there have been increasing numbers of ENs, the majority of payments are made to just 20 ENs nationally. The 2008 regulation changes have also resulted in more payments being made to ENs, yet there also appears to be a shift in ENs serving those who are either ready to work or currently working (GOA, 2011). Because the 2008 reforms enable and promote ENs to pay the Ticket holders directly, some ENs have

**Table 3.4** *2008 Ticket Reforms*

| |
|---|
| ENs choose between two payment systems: milestone outcome and outcome only. Milestone outcome offers payments while a consumer is still receiving benefits. Outcome only offers even higher potential payments but requires that the client leave the disability rolls first. |
| The milestone-outcome system was revised by (a) raising the value of payments, (b) equalizing potential payments for SSI and SSDI beneficiaries, and (c) offering payments at lower levels of earnings. The intent is to help ENs earn larger payments earlier in the return-to-work process, reducing the time lag between service provision and payment. |
| To lessen the administrative burden, SSA revamped the support system for ENs by increasing the number of TTW representatives who provide help, from 4 to 24, and began work on a computer system that will allow ENs to submit paperwork electronically. |

Adapted from Prenovitz (2012).

shared their payment to pay for expenses such as clothing, transportation, and child care. While these expenditures may be very helpful for a beneficiary in getting and keeping a job, the funds are not to be spent on services such as vocational assessment, job counseling, and job placement activities, resulting in the beneficiary being forced to obtain employment on his or her own. For those who are successful in this endeavor, it does lead to questioning the fundamental structure of the EN. For if ENs are sharing payment with Ticket holders who are then obtaining and maintaining a job on their own, how much value is added by the EN, and is it not the beneficiary actually acting as his or her own EN?

The involvement of P&A through the PABSS program can provide a valuable entry point for Social Security beneficiaries. P&A for beneficiaries of Social Security serves as an information and referral resource and can provide critical details related to working with ENs. PABSS can also provide support to Ticket holders who experience inadequate services with ENs. Unfortunately, limited PABSS funding does not provide for large-scale advocacy and information efforts (Kregel, O'Mara, & West, 2003). A larger information and advocacy role of this partner may have further influence on the participation and successful employment for TTW participants.

## CONCLUSION

The Ticket to Work and Work Incentive Improvement Act and its subsequent amendments reflect the principle of other key pieces of disability legislation, including choice, inclusion, and a focus on the individual. Therefore, a particular menu of services is not required of ENs, but rather a variety of approaches can be undertaken. This can lead to greater success that can take into account individual, geographical, or market variation and needs. However, given the time span from the initial creation and adoption of TWWIIA, there is a scarcity of detail related to actual strategies used by the ENs that lead to ongoing employment. Therefore, more focus on researching evidence-based and innovative practices should emerge. When we consider the success of the TTW, we must do so within the context of the economy on TWWIIA outcomes. The recession that began near the end of 2007 coincided with the 2008 TTW reforms. While these reforms addressed many of the barriers that beneficiaries and ENs experienced, their true impact may be muted by the concurrent downturn in the economy.

Future research and evaluation of the impact of TWWIIA should focus on differential outcomes based on variables such as age, gender, ethnicity, and perceptions of public and private ENs effectiveness. This is important because TTW might have had a relatively strong effect on the employment services for certain groups of beneficiaries (Stapleton et al., 2009). In addition, the effects of local policy, labor market, and attitudinal factors of the beneficiaries can have an impact on employment outcomes. Ongoing evaluation and research of TTW is an effective way to provide policy makers, stakeholders, and beneficiaries with better information with which to develop policy, which can enable individuals with disabilities to increase their quality of life through work, sustain long-term employment, and become self-sufficient (O'Leary et al., 2011). In the final analysis, approaches to providing individuals with disabilities access to tools for vocational independence will need to be responsive to the barriers of employment.

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# *Chapter 4: The Causal Relationship Between Chronic Poverty and Disability*

*DANIEL C. LUSTIG*

***After reading this chapter, you should be able to:***

1. Understand the relationship between poverty and disability in the United States.
2. Understand the impact of poverty and disability on career counseling and job placement.
3. Implement counseling strategies that can ameliorate the impact of disability and poverty on career counseling and job placement.

## POVERTY AND DISABILITY

The relationship between poverty and disability is well documented (U.S. Census Bureau, 2004; Wittenburg & Favreault, 2003). For example, the 1991 Survey of Income and Program Participation reported that there were twice as many individuals with a disability below the poverty level as compared to individuals with no disability (U.S. Census Bureau, 2004). Poverty is an important personal and public policy issue for individuals with disabilities. In addition to the disability-related quality of life concerns, poverty is accompanied by both physical and psychological hardships (Iceland, 2003). Policy makers have also focused on the relationship between poverty and health. The 2010 Healthy People Objectives noted the gap in health and health care delivery between persons with disabilities and those without (U.S. Department of Health and Human Services, 2010). This chapter provides an explanation of the process through which a poor individual is at higher risk for acquiring a disability or chronic health problem.

Poverty can be defined as economic deprivation (Iceland, 2012). There are two types of poverty measures: specifically, relative measures and absolute measures. Relative measures define poverty as a comparative disadvantage measured against a societal view of a subsistence standard of living that changes over time. The U.S. measure of

poverty is an absolute measure. Originally developed in the early 1960s, the measure was calculated based on typical food consumption and multiplied by the percentage of income spent on food by a family (Fisher, 1997). Since then the poverty level has been based on an individual's money income before taxes not including capital gains or noncash benefits such as public housing, Medicaid, and food stamps (U.S. Census Bureau, no date). The level is adjusted for inflation annually (Iceland, 2012). In 2012, the poverty threshold for an individual was $11,170 and $23,050 for a family of four (U.S. Department of Health and Human Services, 2012). The studies cited in this chapter typically use a definition of poverty based on the official U.S. threshold. Some studies use the poverty threshold while others use double the threshold. It should be noted that some studies use a relative measure of poverty. Whatever the measure of poverty used, most people in the United States would agree that the individuals cited in the study are poor.

There are numerous studies delineating the relationship between poverty and ill health, chronic health conditions, mental health, and disability. The relationship between poverty and disability and the concomitant low employment rate is a worldwide phenomenon (Elwan, 1999; Yao, 2001). In every country, individuals with disabilities were poorer, and had higher unemployment and underemployment than their nondisabled counterparts (Beresford, 1996; Elwan, 1999). For example, the unemployment rates for individuals with disabilities are 67% in the United Kingdom, 60% in Australia, and 59% in Canada (Beresford, 1996; Elwan, 1999).

A similar relationship between poverty and disability is documented in the United States. Data from the 2000 census showed that the poverty rate for families with a member with a disability was 13% compared to families without a member with a disability at 8%. When two members of a family have a disability, the poverty rate is 14% and when three or more members have a disability, the poverty rate climbs to 19% (Wang, 2005). The median family income in families with a member with a disability was $39,000 compared to families without a member with a disability at $54,000 (Wang, 2005). A 1995 survey found that while 4% of individuals with family incomes exceeding $50,000 reported fair or poor health, 21% of families with incomes below $15,000 reported fair or poor health (Mullahy & Wolfe, 2001). In 1999, of the approximately 29 million low-income families (< 200% of federal poverty level), 25% reported fair or poor health and 15% reported poor mental health (Wittenburg & Favreault, 2003). In a 2003 survey of American households, 23% of adults with disabilities, aged 16–64, were below the poverty level while 9% of nondisabled adults were poor (U.S. Census Bureau, 2003). Finally, a 2002 census found that for adults with no disability 39% had incomes below $20,000 compared to 77% for adults with severe disabilities (Steinmetz, 2006).

Poverty is linked to a wide range of health conditions. Studies have shown a relationship between poverty and higher incidence of cancer, children's asthma, mortality, coronary heart disease, adolescent depression and obesity, higher body mass index and obesity, uncontrolled blood pressure, impaired glucose control, pediatric trauma hospitalizations, and mental disorders (Anderson, Sorlie, Backlund, Johnson, & Kaplan, 1997; Belle, 1990; Chen & Paterson, 2006; Feldman & Steptoe, 2003; Fiscella, 1999; Goodman, Slap, & Huang, 2003; Gorey & Vena, 1995; Roux et al., 2001; Smith, Hatcher, & Wertheimer, 2002). Poor individuals also have a higher rate of functional limitations (Kington & Smith, 1997; Louie & Ward, 2011).

Poverty is particularly difficult for persons with psychological problems. Wadsworth and Achenbach (2005) found that poverty was associated with being anxious and depressed, somatic complaints, thought problems, and aggressive syndromes. Importantly, poor individuals were less likely to improve over time compared to people who were not poor.

Overall, one's level of poverty impacts your risk of disease (Adler et al., 1994). While poverty is associated with disability and chronic health problems, once disabled the individual is more likely to remain poor. Persons with disability who are poor have a lower earning capacity and high disability-related expenses. In addition, other family members who care for the person with a disability are impacted due to disability-related costs and time spent in caregiving may affect their own employment prospects (Palmer, 2011).

This chapter is divided into two parts. The first part focuses on the connection between poverty and disability: (a) poverty as a risk factor for disability, (b) the impact of poverty-related psychological factors on career development and health, and (c) the impact of social role devaluation on individuals who are poor and have a disability. The second part discusses how poverty and disability affect career counseling and job placement and what counselors can do to assist persons who are poor and disabled to make effective career decisions and obtain employment.

## POVERTY IS A RISK FACTOR FOR DISABILITY

Poverty has many associated risk factors that increase the likelihood that an individual will acquire a disability or chronic health problem. For example, individuals who are poor often live in neighborhoods with high crime, poor schools, and limited social networks. While there may be many possible risk factors that may have some impact on the likelihood of chronic health problems and disability, the following discussion centers on those thought to be most important.

### *Family Stress*

Families experience stress related to a variety of poverty-related conditions. Low-income children in comparison to middle-income children are exposed to greater levels of violence, family disruption, and separation from their family. Poor children experience more divorce and live in families where the father faces financial pressures and greater marital conflict. Low-income families more often have unresponsive, harsher, and more punitive parenting (Evans, 2004). Children living in poverty are twice as likely to change residence in a year and five times as likely to be evicted compared to children not in poverty (Evans, 2004). Low income, declining income, and frequent changes in family structure are associated with significantly increased birth risks (Wu, 1996). Stressful family environments are inversely associated with parents' confidence in the ability of family members to obtain health care and a child having their health care needs met (Fairbrother, Kenney, Hanson, & Dubay, 2005).

### *Neighborhoods and Housing*

Low-income neighborhoods are associated with higher incidence of neighborhood crime that contributes to increased chances for injuries and reduced physical exercise (Evans, 2004; Frenn et al., 2005; Saegert & Evans, 2003). Housing in low-income neighborhoods is more likely to have poor plumbing, lack central heating, poor indoor air quality, more dangerous street traffic, poorer municipal services, apartments with too many occupants, high levels of community noise, and occupants who do not feel they can control their living space (e.g., noisy and no personal space) (Evans, 2004; Saegert

& Evans, 2003). All these physical and psychological expressions of poverty increase the likelihood of experiencing psychological distress and acquiring a disability or chronic health condition. For example, lead exposure has been associated with learning problems, exposure to smoking has been shown to be associated with asthma, and dangerous street traffic is associated with injury. Other studies have shown a relationship between poor neighborhoods and smoking and greater negative effects of diabetes (Cohen, Sonderman, Mumma, Signorello, & Blot, 2011).

Low-income children are particularly vulnerable to the impact of poverty. Poor families have a 40% higher risk of having a child with a disability. This increased risk is related to (a) living in poor neighborhoods where they are exposed to heightened environmental risks (e.g., violence, divorce, and eviction), (b) poor maternal nutrition and poor health care that increases the chances for low birth weight, and (c) poor children receiving inadequate early nutrition or health care that might prevent the development of serious disabilities and health conditions (Evans, 2004; Fairbrother et al., 2005; Meyers, Lukemeyer, & Smeeding, 1998; Pamuk, Makuc, Heck, Reuben, & Lochner, 1998; Perkins, 2012; Wu, 1996). Dowd, Palermo, and Aiello (2012) noted that family poverty when the children are young could have a negative impact on the developing immune system and later health outcomes. Poortinga, Dunstan, and Fone (2007) concluded that neighborhoods with poor access to amenities, poor neighborhood quality, neighborhood disorder, lack of social cohesion, and neighborhood deprivation increased the likelihood that people would report poor health.

### *Limited Access to Health Care*

Persons who are poor are more likely to have limited access to health care which impacts their ability to prevent a disability and increases the effects of existing health problems (Iceland, 2003). Being poor increases the chances that you will be uninsured, will postpone or not receive needed health care, and will use the emergency room as the main source of care (DeNavas-Walt, Proctor, & Mills, 2004; Guendelman, Angulo, & Oman, 2005; Iceland, 2003; Northam, 1996; U.S. Department of Health and Human Services, 2005). Even for poor individuals with access to reduced-fee public health clinics, almost half reported not using the health clinic for financial reasons and a quarter had not gone because of long waiting times at the clinic (Kiefe & Hyman, 1996).

A person with a disability has additional problems. Lustig and Strauser (2010) found that vocational rehabilitation clients in low-wage jobs had lower access to health benefits than clients in high-wage jobs and low-wage clients had lower access than low-wage workers in the general population. Although many workers experience financial difficulties associated with high out-of-pocket medical expenses such as a lack of prescription coverage and high deductibles and premiums, insured individuals with disabilities are more likely to experience financial difficulties because they are more likely to need medical care (Cunningham, 2007; Merlis, 2002; Merlis, Gould, & Mahato, 2006).

### *Limited Access to Education*

Research indicates that students from families in the bottom fifth of socioeconomic status score a standard deviation lower than families in the top fifth in math and reading scores when they start kindergarten and this gap does not change as they progress through the higher grades. Furthermore, the gap in achievement between the bottom 10% and the top 10% of family income has grown 40% to 50% in the past 25 years (Reardon, 2012).

Low-income neighborhoods experience lower-quality educational experiences. When poor children enter the school system, they are less likely to have qualified teachers (Evans, 2004). Low-income adolescents are twice as likely as middle-income students to report weapons in school (12%) or physical assaults (32%) and more likely to sit in classrooms that are noisy (Evans, 2004). School systems in low-income areas spend less per pupil than more affluent areas (Biddle & Berliner, 2002; Slavin, 1997). Other studies have shown a relationship between poverty and academic achievement and rates of school dropout (Gephart, 1997).

Low-income children experience substantially less cognitive stimulation and enrichment when compared to wealthier children and their parents speak less often and are less likely to read aloud or go to the library (Evans, 2004). This affects both cognitive development and school performance. Studies also point to the connection between poverty, health at birth, and intelligence. For example, babies born into poverty are more likely to be born small, which affects cognitive development (Bracey, 1997).

### *Unemployment*

Whether a person has a work limitation and how long he or she has a work limitation are positively related to poverty. The longer a person has a work limitation the more likely he or she will be in poverty. For example, 8% of persons with no work limitations were poor for more than 12 months, 2% for more than 36 months, and only 0.4% for 48 months. Conversely, for those with a work limitation lasting more than 36 months, 39% were poor for more than 12 months, 20% for more than 36 months, and 7% for 48 months. Thus, for persons with a work limitation lasting more than 36 months, they were 14 times as likely to be poor (She & Livermore, 2009).

Unemployment is positively related to a lack of health insurance and a lack of health insurance reduces the chances that an individual will receive consistent health care throughout their life time (Duchon, Schoen, Simantov, Davis, & An, 2000). While most Americans receive health insurance through their employer (Duchon et al., 2000), a significant percentage of individuals who do work are uninsured (Budetti, Shikles, Duchon, & Schoen, 1999; Duchon et al., 2000). Low-wage earners are more likely to be uninsured and to have skipped needed medical care in the past year because of cost and to have been unable to pay medical bills in the past year (Budetti et al., 1999). In addition, low-wage workers have high out-of-pocket insurance-related expenses (premiums, deductibles/co-pays, prescriptions, inpatient care, and medical equipment), which are a disincentive to use their health insurance when ill (Merlis, 2002). These factors decrease access to needed medical care for individuals who are poor and unemployed or poor and employed.

### *Limited Social Networks*

Low-income families have smaller social networks that negatively affect an individual's ability to obtain and maintain employment (Evans, 2004; Pearlin & Johnson, 1977; Potts, 2005; Weinraub & Wolf, 1983; Wilson, 1991). Labor markets, important in facilitating access to job information, are communicated to individuals via social networks consisting of family, friends, and relatives (Ferguson, 2002). Since approximately 50% of workers know someone at their place of employment when hired, strong social networks are an important source of an individual's ability to successfully enter the labor market (Durlauf, 2001). If a job seeker has a limited social network, as is more typical in poor

neighborhoods, they are less likely to quickly obtain important job information necessary for matching the individual with a job (Durlauf, 2001). Poverty increases the likelihood of an individual having a limited social network which makes it more likely that the person will be unemployed or underemployed. As discussed earlier, both unemployment and underemployment reduce one's access to health benefits, thus increasing the risk of disability and chronic health problems.

### *Group Influence*

Membership in a group, in this case poor individuals living in a neighborhood, affects individual behaviors and outcomes. The social context in which one lives and an individual's interdependence on others is important in the kinds of choices one makes and the options available for those choices (Durlauf, 2001, 2002). Individuals are influenced by the choices of others and the benefits and consequences of pursuing a particular activity change as others engage in the activity (Durlauf & Young, 2001; Glaeser & Scheinkman, 2001). Durlauf (2001) and others (Young, 2001) described two group factors that influence individual choices and behaviors.

The first set of group factors is based on Bandura's theory of social or observational learning (Bandura, 1989). Bandura posits that most human behavior is learned by observation through modeling (Bandura, 1986). Observation provides a guide to future behavior. According to observational learning, models and environmental factors influence individuals by providing information rather than by eliciting matching behavior (Bandura, 1986; Strauser, Waldrop, & Ketz, 1999). Within the context of a poor neighborhood, the impact of models can be understood as the effect of peer groups and conformity and role models.

Peer group and conformity are the effects of the choices of some members of a group on the preferences of others in the group. Peer groups establish norms and accepted behaviors that can encourage or discourage behaviors. Similarly, there is a tendency of individuals to conform to the behaviors of others (Young, 2001). In the context of neighborhood influences in poor neighborhoods, the adoption of a behavior is more likely when one's neighbors or peers adopt the behavior. This holds true for both positive and negative behaviors.

Young (2001) identified three reasons individuals may want to conform. First, imitative conformity means that people conform because they want to be like the people around them. For example, adolescents may decide to drink alcohol because they want to be like their peers. Second, instrumental conformity means that individuals conform because it is helpful. Individuals in a particular neighborhood may use neighborhood-specific language because it assists them in being understood. Third, informational conformity means that individuals adopt a behavior because they see the behavior demonstrated around them and perceive their desirability. Selling drugs or doing well in school are examples.

Peer groups and role models are typically the reference for conformity. Research has shown the influence of peer groups on drug use, alcohol use, and criminal activity (Flom, Friedman, Kottiri, Neaigus, & Curtis, 2001; Gephart, 1997). For example, a study of adolescents found that having friends who used drugs predicted increased drug use (Razzino et al., 2004). The socioeconomic level of one's peers has an independent and significant effect on health-related behaviors such as condom use (Caldas & Bankston, 1997; Norris & Ford, 1998). Thus, the influence of peer groups and the desire to conform have an impact on a number of health-related behaviors that may increase the likelihood of developing chronic health problems or disability.

The following examples assist in understanding the impact of peer groups and role models on the development of chronic health problems and disability. First, education affects an individual's ability to find employment and unemployment reduces access to consistent health care (Lustig, Strauser, & Donnell, 2003). If children in a poor neighborhood see adults either not completing degrees or not obtaining employment upon completion of a degree, then they may inappropriately decide not to pursue post–high school education (Durlauf, 2001). Second, an individual's decision to use scarce financial resources to pay for prescribed medications or to visit an emergency room when ill are affected by the experience of modeled behavior of people in the neighborhood. For example, if an ill person receiving emergency room services sees poor patients waiting for a long time and treated with a lack of respect, the individual may conclude that it is a bad decision to use emergency room services when ill (Simpson et al., 2005). Third, an individual's decision to use and/or sell illegal drugs is affected by modeled behavior of peers who make money selling drugs (Greene, 1993; Razzino et al., 2004). These examples provide a basis for behavior that may lead to an inability to secure appropriate medical care, an increased likelihood that a treatable condition will become a chronic health condition, and an increased risk of alcohol or drug abuse.

The second group factor is social complementarities. This is the influence of others on the benefits and productivity of an individual's choices (Durlauf, 2001; Glaeser & Scheinkman, 2001). It implies that each individual's small change can increase the benefits for everyone else. This is because social interactions are highly interdependent and imply a multiplier effect where small changes can have a large effect on the neighborhood. For example, one person may start a restaurant in a neighborhood that employs 10 previously unemployed people. This may then impact the families both economically and through positive role models for their children.

## POVERTY-RELATED PSYCHOLOGICAL FACTORS AFFECT CAREER DEVELOPMENT AND HEALTH

### *Work Beliefs*

Poverty impacts an individual's view of work, self-worth and causality, and global orientation about how their world operates. With respect to work, Blustein et al. (2002) found that lower socioeconomic high school students saw work as mainly a source of income, were less likely to find work that matched their vocational aspirations, received less instrumental support from their families for help regarding career decision making, and were more likely to have family disruptions (e.g., moving or losing a job).

### *Self-Worth and Perceived Mastery*

Studies show that poor individuals had lower feelings of self-worth, lower perceived mastery (effectiveness in carrying out goals), and higher perceived constraints (perception that there are obstacles beyond one's control that interfere with reaching goals). Poor individuals are more likely to explain economic wealth, broad social outcomes, and emotions in terms of external contextual factors, that is, outside of the individual's control (Kraus, Piff, & Keltner, 2009; Lachman & Weaver, 1998; Paschall & Hubbard, 1998). These feelings and assumptions decrease the likelihood that the individual will persevere in pursuing both training and employment.

### *Sense of Coherence*

Sense of coherence is the global orientation that the world is comprehensible, manageable, and meaningful (Antonovsky, 1987, 1993). Sense of coherence facilitates adjustment by increasing the likelihood that an individual will believe that dealing with the stressor is worthwhile, that attempts to resolve the problem are worth the effort, and view the stressor as a challenge rather than a burden, and consequently, decide to do something about the stressor.

Sense of coherence has been linked to both poverty and disability. Research provides support for the relationship between poverty and lower levels of sense of coherence (Feldt, Kokko, Kinnunen, & Pulkkinen, 2005; Groholt, Stigum, Nordhagen, & Kohler, 2003; Lundeberg, 1997). There is also evidence that a strong sense of coherence is positively related to subjective health perceptions and general health (Ebert, Tucker, & Roth, 2002; Motzer & Stewart, 1996; Soderberg, Lundman, & Norberg, 1997) and negatively related to state and trait anxiety, perceived stressors, depression, and somatic complaints (Antonovsky, 1993; Carstens & Spangenberg, 1997; Flannery, Perry, Penk, & Flannery, 1994; Korotokov, 1998; McSherry & Holm, 1994; Rena, Moshe, & Abraham, 1996).

Within the context of poverty, individuals with a low sense of coherence are (a) less likely to effectively engage the health care system or make decisions that are health facilitative and (b) less likely to persevere in pursuing educational and vocational endeavors. This serves to increase the chances that the person will acquire a disability or chronic health problem and maintain their condition of disability or chronic health problem, and decreases the likelihood that they will obtain and maintain employment.

### *Developmental Work Personality*

Strauser et al. (1999) offered a concept of the developmental work personality. They proposed that the work personality develops through the process of observational learning that occurs primarily during the individual's early life experiences and is influenced most by the parents as role models and the individual's school experiences. During the transition from adolescence to young adulthood, the person's life shifts from a highly supportive home environment to a more demanding work environment. If the individual has not learned appropriate behaviors from their parents and in school, they will have difficulty adjusting to the work in terms of understanding the organizational culture and behavioral expectations of a job, job demands and skill requirements, and the rewards and opportunities available to the worker. The environment of a poor neighborhood with the concomitant family stresses and disruptions, diminished physical and financial resources, and disruptive school environment suggest that children growing up poor may have more difficulty developing appropriate work personalities. The consequences are more difficulty adjusting to work demands because they will have less access to suitable role models.

## SOCIAL ROLE DEVALUATION AND INDIVIDUALS WHO ARE POOR AND DISABLED

Wolfensberger (1983, 2000) stated that people's welfare depends extensively on the social roles they occupy. People who fill roles that are positively valued by others will generally be treated well whereas those who occupy devalued roles will typically be treated badly. Persons who are both poor and disabled are perceived and interpreted by others as having less value and consequently experience a variety of harmful life experiences.

A person with a disability who is poor is (a) consigned to low social status and, as a result, is systematically rejected by the community, friends, family, and professionals, (b) more likely to experience a loss of control over his or her life, (c) more likely to be deindividualized in the implementation of health and social services, and (d) associated with negative images such as dependent, lazy, inhuman, and dangerous. These negative images increase the likelihood that others will treat him or her badly and make that person a scapegoat for societal problems.

While there are a number of potential negative effects on the individual, two are noted here. First, persons who have a disability experience discrimination in the labor market. In 2010, only 20% of adults with disabilities were employed compared to 69% of adults without disabilities (Bureau of Labor Statistics, 2011). In addition, one-third of the employed adults with disabilities were employed part-time compared to one-fifth of adults without disabilities (Bureau of Labor Statistics, 2011). Second, an individual who is poor experiences reduced access to health and social services and the services they receive are of inferior quality. For example, poor families are less likely to have health insurance than more affluent families (DeNavas-Walt et al., 2004) and are less likely to use health insurance if they are insured (Weineck, Byron, & Bierman, 2005). The quality of the health care provided is typically lower. In a study analyzing two national health care databases, children from low-income families, when compared to those from middle-income families, were less likely to have had a visit to the physician, were less likely to have been prescribed medicines, and were more likely to have visited an emergency room rather than outpatient services (Simpson et al., 2005). In the same study, low-income children's parents were twice as likely to report that health providers never or seldom listened carefully to them or exhibited respect for them when compared to middle-income families (Simpson et al., 2005). The impact of having reduced access to health services is particularly pernicious because it increases the chances that a poor person will also have a disability or chronic health problem thus placing the person into two devalued roles.

With respect to role devaluation, there is a deep connection between poverty and disability. Similar to the experience of poor people, people with disabilities experience problems and delays in securing needed health services, have higher rates of unemployment, and experience more psychological stress (U.S. Department of Health and Human Services, 2010). As Wang (2005) noted, the median income of families with a member with a disability is only 72% for families without a member with a disability and the more persons in a family with a disability, the higher the rate of poverty.

## CAREER COUNSELING AND EMPLOYMENT

### *Poverty and Disability Make Career Decisions More Challenging*

Research supports the connection between socioeconomic status and career decision making. For example, Thompson and Subich (2006) found that college students who had greater economic resources, social power, and prestige had greater confidence in their ability to make career decisions. Blustein et al. (2002), focusing on the impact of the family, found that lower socioeconomic students received less instrumental support for help regarding career decision making and were more likely to experience family disruptions. As mentioned earlier, poor individuals have lower feelings of self-worth and perceived mastery and higher perceived obstacles beyond one's control and believe that external factors are more important than individual control (Kraus et al., 2009; Lachman & Weaver, 1998; Paschall & Hubbard, 1998). These beliefs can make

career decision making more difficult because the individual may believe that they do not have the psychological resources to change and external factors are more important anyway. Durlauf's memberships theory of poverty proposes that membership in a group, in this case poor individuals living in a neighborhood, affects individual behaviors and outcomes. Within the context of making a career decision, an individual whose peer group and role models have more restrictive career opportunities is more likely to make career decisions similar to the career decisions of the relevant role models. As noted earlier this may reduce the likelihood that post–high school training will be pursued.

Less confidence in making career decisions, less family support, more family disruptions, lower feelings of self-worth, a belief that external factors are more salient than personal control, and peer groups and role models that may restrict career opportunities make career decision making more difficult for an individual who is poor.

Individuals with disabilities also have more difficulty making career decisions because they are more likely to have limited work experience, lack of knowledge regarding career and vocational skills, have less information about careers opportunities, have limited opportunities to make career decisions, and often have negative employment experiences (Czerlinsky & Ryan, 1986; Enright, 1996; Farley, Schriner, & Roessler, 1988; Lustig & Strauser, 2000; Luzzo, Hitchings, Retish, & Shoemaker, 1999; Peterson & Gonzalez, 2000; Powers, Sowers, & Stevens, 1995; Strauser, Lustig, & Uruk, 2004).

Sense of coherence is associated with the ability to make effective career decisions. Persons who are poor and/or disabled are more likely to have lower levels of sense of coherence, and lower sense of coherence is associated dysfunctional career thoughts. Improving a person's sense of coherence will have a positive effect on the person's ability to make effective career decisions (Lustig & Strauser, 2008). Dysfunctional career thoughts are characterized by individuals having difficulty making career decisions because of (a) emotional barriers or difficulty in understanding how to make a decision—termed *decision-making confusion*, (b) difficulty committing to a career choice because of the anxiety associated with potential outcomes—termed *commitment anxiety*, and (c) problems effectively assimilating the ideas and opinions of others with regard to their career decision—termed *external conflict* (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996). Concerning decision-making confusion, individuals with a strong sense of coherence are more likely to initiate and persevere in the career decision-making process because they believe that the process of making a decision is worth the effort, that life's problems, such as making difficult career decision, are manageable, and they have the personal and social resources to handle deciding upon a career goal. Concerning commitment anxiety, individuals with a strong sense of coherence are less likely to experience anxiety related to committing to a career goal, because they perceive that they have the ability to understand the complex and varied outcomes of making a career decision. Concerning external conflict, individuals with a strong sense of coherence are more likely to believe that they can balance and integrate the opinions of others with their own ideas about career decisions, because they believe that career problems are manageable. This means that they believe that they have the emotional and cognitive resources for handling diverse opinions about their career decisions without becoming overwhelmed by other people's opinions. While Antonovsky believed that an individual's sense of coherence was largely determined by prior life experiences, he did think that an adult's sense of coherence could be improved (Antonovsky, 1987, 1993). For example, a health professional or counselor can emphasize collaboration which has the potential to assist in deriving a sense of meaningfulness from the experience. In addition, a career development process that is structured, that is perceived as stable and consistent, and that does not either overwhelm or

underwhelm the client or patient will increase his or her ability to handle the demands of adjusting to new employment potentials.

The Cognitive Information Processing (CIP) (Reardon, Lenz, Sampson, & Peterson, 2000; Sampson, Peterson, Lenz, & Reardon, 1992; Sampson, Reardon, Peterson, & Lenz, 2004) theory has been applied to the career development process and provides a basis for career interventions that address these types of issues associated with making effective career decisions. The CIP approach focuses on the individual's *capability* to make an effective career decision and the *complexity* of the individual's external situation. *Capability* resides within the individual and refers to the cognitive and affective capacity of the individual to engage in effective career and employment problem solving and decision making. The cognitive and affective components needed for effective career decision making and problem solving include (a) the capacity for thinking clearly about career problems, (b) confidence in selecting appropriate strategies to address career problems, (c) having the capacity to implement a career plan of action, (d) develop appropriate alternative courses of action if the first plan does not produce desired results, and (e) acceptance of personal responsibility for making career decisions. *Complexity* refers to the contextual factors originating from the family, society, employing organizations, or the economy that make it more difficult to process the information necessary to solve career and employment problems and make decisions. It is easier to make a career decision when these contextual factors are less significant. Research provides support that individuals with a disability who are poor may experience more family disruptions, less family instrumental support, more negative societal attitudes, and less financial support for pursuing training and employment. Within the CIP approach to career decision making, the counselor assesses the readiness of the individual for making an effective career decision by focusing on the individual's capability and the complexity of the situation.

### Poverty and Disability Limit One's Employment Options

Both poverty and disability limit an individual's employment options. Social role devaluation, a dysfunctional developmental work personality, reduced access to education, weak social networks, and reduced access to health care reduce an individual's employment options. In addition, these factors impact the complexity component of the CIP approach. By ameliorating the negative impact of these contextual factors, the individual will have an easier time making an effective career decision.

### Social Role Devaluation

Social role devaluation implies that a person with a disability who is also poor will experience higher levels of role devaluation than a person who is either disabled or poor. This devaluation within the context of careers suggests that negative attitudes toward a job seeker will make it more difficult to secure employment. As Wofensberger states, occupying more than one devalued role increases the negative impact. Thus, a person who is poor and disabled will have more problems accessing the labor market than a person who is either poor or disabled. The concept of social role devaluation, that people in lower social roles (i.e., individuals with a disability who are poor) experience negative societal attitudes, shrinks one's employment options and decreases the chances of securing employment. These negative societal attitudes or stigma are social disapproval of personal characteristics that are against cultural norms. While ubiquitous, being poor and disabled is inherently stigmatizing because of the present

characteristics that are different from what is expected. American values of attractiveness and self-sufficiency contribute to the stigmatizing nature of poverty and disability. The salient feature of a stigmatized or socially devalued group is that they are prevented from interacting easily with others. Clearly, the problematic nature of the interaction makes securing employment more difficult. Employers and others respond to individuals who are poor and disabled by devaluing, stereotyping, and labeling them. Negative attitudes can be addressed by assisting clients to not internalize society's view of them. Support groups can be helpful in this regard.

### Developmental Work Personality

The concept of developmental work personality suggests that individuals who have not learned appropriate behaviors from their parents and in school will have difficulty adjusting to the expectations and demands of a job. For individuals with diminished developmental work personality, keeping a job is more difficult. Over time, this reduces the individual's range of employment opportunities. Job shadowing, volunteer work experiences, and part-time employment during adolescence and young adulthood can improve the person's developmental work personality.

### Access to Education

Poverty reduces one's access to education and consequently makes it more difficult to acquire work skills. The labor market has changed from a manufacturing-focused job market to a job market that increasingly demands more formal education. Thus, reduced access to education also reduces access to jobs requiring more education (Gilbride & Stensrud, 2012). Vocational rehabilitation consumers often secure low-wage jobs with minimal benefits and a lack of formal education increases the likelihood that they will secure jobs in the secondary labor market which are characterized by low wages and minimal benefits (Hagner, 2000; Lustig & Strauser, 2010). Access to education can be improved through linking the person to available financial support (e.g., loans and vocational rehabilitation) and directing the individual to community services such as adult education.

### Weak Social Networks

Weak social networks reduce the likelihood that a person will be able to enter the primary labor market. A person with a disability who is poor typically has a weak social network. Many jobs in the primary labor market (i.e., jobs with high wages, benefits, and more autonomy) are accessed through networking. Consequently, individuals with disabilities who are also poor will be at a disadvantage when attempting to obtain primary labor market jobs (Hagner, 2000; Gilbride & Stensrud, 2012; Potts, 2005). Social networks that are large, well-connected, have prestigious contacts, and include more acquaintances rather than family members or close friends are the most effective at helping the job seeker secure employment. The client's social network can be improved by participating in civic and religious groups, volunteering in an area related to the potential employment goal, and maintaining contact with past employers, teachers, friends, and family. Assisting the individual to develop these types of social networks can help ameliorate the negative impact of poverty and disability.

### *Limited Access to Health Care*

Individuals who have a disability and are poor typically experience limited access to health care and when health care is available it is expensive to utilize. For people with a disability who are employed in a low-wage job, they are more likely to be uninsured and if insured less likely to use the insurance because of high out-of-pocket costs. The effect of this can be that the employee may miss more days of work, thus making it more difficult to maintain employment. For a job seeker with a disability who may be perceived as potentially using more health benefits if hired and be absent more than other employees, the person's health status may be a disincentive to be hired. Finally, the job search process should focus on securing employment with affordable health benefits. Generally, the state and local governments have higher health benefits participation rates than private sector jobs (U.S. Department of Labor, 2012). As noted earlier, jobs with higher wages are more likely to have health benefits and the employee is more likely to use the benefits when he or she has a higher wage. This suggests that focusing on government jobs with higher wages will increase the chances that the employee will have health insurance and use it.

## MAKING CAREER DECISIONS IN THE REAL WORLD

Most career theories assume that the individual has the ability to make career decisions without restrictions. Personal control is an assumption of many career counseling approaches. Duffy and Dik (2009) defined "work volition" as the individual's capacity to make career choices solely on internal factors such as interests. For an individual with a disability who is poor, external constraints may be the most significant factors in making a career decision. For a counselor assisting in the career decision-making process, acknowledging and discussing these constraints is critical.

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# Chapter 5: Personality Development, Expression, and Assessment for Work Adjustment Considerations in Rehabilitation Contexts

DEIRDRE O'SULLIVAN

***After reading this chapter, you should be able to:***

1. Identify personality factors and expression relevant to major life domains such as work, health, and personal relationships.
2. Understand the developmental origins and trajectory of personality expression.
3. Understand commonly used personality assessments, as well as intervention strategies targeting personality expression for rehabilitation clients.

## PERSONALITY: THE EXPRESSION OF OUR TENDENCIES

Perhaps more than any other commonly assessed attribute, personality comes closest to being understood as the essence of who we are as a human being. Our talents, our intelligence, our choices, our values, and our past experiences provide the context for which personality is expressed and, to a large extent, how our personality is perceived by others. We are likely to assign levels of respect for another based on perceived intelligence, education level, expressed virtues, vocational choice, and social roles, but whether we *like* the person or not has far more to do with personality. How well we connect to others is often based on how they experienced and continue to experience the world, and subsequently, how they express that experience externally. This external expression of our cumulative experiences and our interpretations of those experiences is what we operationalize as *personality*. As research on personality continues, its significance in the workplace becomes increasingly solidified. Personality traits predict work outcomes as well as (or better than) many traditional criteria, such as education, aptitude, and prior experience (Hough, 1998;

Roberts & Friend, 1998; Roberts & Robins, 2004; Roberts, Walton, Bogg, & Caspi, 2006a). As such, personality is important for consideration in job readiness, job placement, and career development processing. Personality is also strongly related to other major life domains, including health and relationships. Health and relationship quality and status directly and indirectly impact work and career trajectories, and as such, personality expression in all three domains is important for rehabilitation providers wishing to enhance vocational outcomes for consumers.

There are a range of reasons that clients seek or otherwise engage in counseling, including disrupted education, job loss, relationship loss, court mandates, low self-esteem, and symptom expression of chronic illness or disability, among others. Personality expression plays an important role in how these contributing factors are interpreted, how likely a client is to embrace new coping strategies, as well as how likely others will support a person working through the presenting problems. Additionally, self-personality expression or personality traits of loved ones, colleagues, or a boss can be the presenting problem for many clients. So, for these reasons, personality is central to much of our work with clients, and it is critical that we help educate clients about how they are probably being perceived by important outsiders, such as employers, coworkers, and other significant people, and how to interpret others' personality differences. It is also important to explore the connection between personality and other life domains including health and relationships, since work, health, and interpersonal relationships are connected to overall rehabilitation outcomes. Clients can learn to alter the way personality traits are expressed in specific domains, such as work domains, in order to increase the likelihood of desired outcomes.

Is personality the same as identity? Are we born with the personality traits we have as adults? How does personality impact major life domains such as work? And how exactly do we measure it? This chapter discusses each of these questions from the perspective of how rehabilitation counselors can utilize the answers we have at this time. As you read the chapter, think of how rehabilitation counselors can conceptualize personality from a *strength-based* approach. In other words, how can rehabilitation counselors leverage clients' positive personality expression at work, while simultaneously facilitating adjustments where needed, in order to facilitate optimal work adjustment.

## OPERATIONALIZING PERSONALITY FROM THE FIVE-FACTOR MODEL

There are multiple conceptualizations, assessments, and definitions of personality. Some approaches aim to classify people according to "types," and as such, a focus on the similarities among people supports grouping according to these similarities. This approach is considered to be in the early stages of research development, as our understanding of personality "types" is less well developed (Caspi & Shiner, 2005). In contrast, a strong legacy of research over the decades has led to a consensus among many in social psychology to view the five-factor model (FFM) as the best unifying framework for understanding personality for a number of reasons (De Raad, 2000). This approach focuses not on the similarities among people in an attempt to group individuals into types, but rather the focus is on understanding the differences within each person. This framework respects the underlying assumption that all individuals express degrees of traits consistent across cultures. The FFM has been employed in rigorous research and demonstrated impressive structure integrity pertaining to the five factors of *neuroticism*, *extraversion, openness, agreeableness*, and *conscientiousness* (McCrae & Costa, 2010). These five factors have held up across diverse demographic groups repeatedly over substantial periods of time.

The FFM is not a diagnostic model, but rather conceptualizes *normal* personality trait expression. Each of us expresses our thoughts, feelings, and behaviors on a continuum of these five factors as we navigate multiple life domains. While these five factors are not necessarily the only appropriate and valid personality traits appropriate to humans, they are the ones that have demonstrated impressive validity and reliability. The FFM of personality extends from the lexical tradition of trait descriptors for diverse people across multiple cultures and nationalities. From a long list of multiple descriptors, five distinct factors emerged after a series of analyses, and these factors have been replicated numerous times, and correlate with other personality frameworks and assessments (McCrae & Costa, 2010). The five factors are normed according to gender differences, but other group differences are less well established. One major criticism of this model is the weak theoretical underpinnings of the five factors. Despite multiple replication and consistency of factors across time and culture, the factors emerged empirically, and were not derived from one unified theory of personality (Erford, 2007). While this is a worthy criticism, it could also be noted that multiple theories of personality can be used to explain the existence of these five common, global factors. Two of these developmental theories are outlined later in this chapter.

Within each factor is a set of related traits called facets. Personality factors explain the broad trait expression, while facets explain the nuanced mechanisms for trait expression. High and low scores on the factors are not necessarily indicative of positive or negative personality expression. Rather, the environments in which we operate influence trait expression. Some contexts are conducive to low expression of a given trait, while high expression of the same trait may be valued in a different setting. Each factor and facet is briefly summarized from the comprehensive descriptions provided by the NEO-PI-R professional manual (McCrae & Costa, 2010).

### *Neuroticism*

Persons who express high neuroticism (N) are said to express a tendency to experience the world as a distressing place, which may include feelings of anxiety, fear, general negative affect, hostility, and self-reproach. Conversely, persons generally low in their expression of "N" are perceived as being emotionally stable, relaxed, and able to handle stressful situations with ease. When examined more closely, the neuroticism factor is made up of six facets: *anxiety, anger, depression, self-consciousness, impulsiveness,* and *vulnerability*. In understanding the facets, it becomes clear that two people who each express high "N" may be expressing very different facets of this trait. For instance, a high "N" individual who experiences and expresses anxiety, self-consciousness, and vulnerability to fear is quite different from a high "N" individual who experiences and expresses anger and impulsiveness. As counselors, we may have a tendency to feel greater empathy for the formerly described high "N" individual, and may disengage with some clients. If we understand our clients' neuroticism as a coping strategy in a distressing world, we can empathize more readily as we work with clients to facilitate more adaptive coping strategies for managing distress.

### *Extraversion*

Persons who express high extraversion (E) are likely to express sociability, positive affect, exuberance, and optimism. Conversely, individuals who express low "E" are reserved in their demeanor, and tend to be independent, but not necessarily socially anxious or

pessimistic. The six facets of extraversion are *warmth, gregariousness, assertiveness, activity, excitement seeking,* and *positive emotions*. Again, the facets are the key to understanding personality. Imagine someone who is gregarious in personal interactions, assertive, operates in a rapid tempo throughout the day, and is excitement seeking, but low in his personal expression of warmth. This person is different from someone with high levels of expressing warmth and positive emotions and reduced levels of the other facets. Both can be said to be extraverted individuals with different styles of expressing this trait.

### Openness

Persons who express high openness (O) are described as imaginative, intellectually curious, attentive to their inner feelings, and unconventional. Persons low in their expression of "O" are said to prefer conventions and traditions, less likely to seek out intellectual and artistic pursuits, and prefer the familiar to the new and novel. The facets of openness include *imaginative, aesthetic appreciation, being receptive to feelings, willingness to try new activities,* and *intellectual curiosity*. A person who frequently expresses the facets of intellectual curiosity and willingness to try new activities may have little in common with someone who is also an open person but instead expresses the facets of reception to feelings and aesthetic appreciation. It is not difficult to imagine the first individual valuing academic and intellectual pursuits, including new ways of thinking and doing, while the second individual values the exploration of internal feelings and the presence of art and beauty over academic endeavors. Both can be described as open individuals, but they express this trait in distinctly different ways. Each person may be motivated to explore new frontiers, but he or she does not necessarily agree with the other's approach to doing so.

### Conscientiousness

Persons who express high conscientiousness (C) are said to be purposeful, dutiful, determined, reliable, and achievement orientated. Conversely, persons who express low conscientiousness are described as being disorganized and impulsive. These are not necessarily negative traits, as many contexts value a person who can function in environments where order is not predictable, and reacting on impulse may be needed. The facets of conscientiousness include *competence, order, dutifulness, achievement, self-discipline,* and *deliberation*. Imagine a person in a work setting who highly values well-ordered, tidy spaces, is generally cautious in decision making, and strictly adheres to company policy. This person expresses order, duty, and deliberation facets of "C." Now imagine another conscientious individual who is consistently considered effective and capable at work (but not necessarily the one with the neatest desk or organized schedule), has high aspirations for achievement, and works until the job is done. This individual is quite different from the first individual described, yet both can be said to be conscientious.

### Agreeableness

Finally, persons who express high agreeableness (A) are described as being prosocial, altruistic, polite, sympathetic, and eager to help others, as they generally believe that others would be likely to help them. Conversely, persons who express low "A" are more inclined to be skeptical of others, self-focused, and competitive rather than cooperative.

The agreeableness facets include *trust, altruism, compliance, modesty, straightforwardness,* and *tender-mindedness.* It should be noted that a person who is too agreeable may not necessarily be well liked, and may in fact be seen as too dependent on others, eager to please, or lacking in conviction (McCrae & Costa, 2010). Likewise, a person who is disagreeable may be unpopular in many settings, but is likely to be highly effective in certain work environments, so long as popularity is not a critical element of employment. Imagine the competitive individual, who is so confident as to be often described as arrogant, and who makes decisions based on logic rather than human emotions. One can imagine several vocational avenues where low agreeable expression is valued, such as in a CEO, a military leader, and academic researchers.

## PERSONALITY ASSESSMENT AND INTERPRETATION

Some researchers have suggested that people with low levels of agreeableness are, in fact, expressing narcissistic or antisocial traits (Widiger & Costa, 2002). While the assessments associated with the FFM do not intend to measure clinical components of personality, very low scores on (A) correlate with some personality disorders, and persons very high on (N) may benefit from additional screening for anxiety disorder and/or depression (McCrae & Costa, 2010). While caution is recommended in the course of any interpretation of test results, it should also be noted that behaviors can be predicted by measures of the FFM traits (Back, Schmukle, & Egloff, 2009). Thus, we can and ought to expect behavioral outcomes based on results from personality self-reports, at least to some degree. It is also important to note that we can be relatively assured in our interpretation of individual factors and facets and the associated tendencies and outcomes based on multiple quantitative research results, which consistently reveal relationships among factors, facets, and outcomes. We are a long way from understanding the nuanced and more complex intersection of all the possible combinations and varying levels of factor and facet expression in the context of different life domains. In other words, we do not have a formula that can tell us which precise levels of factors and facets, when combined in different ways, will lead to a successful life. However, as we learn more about personality, and as the prediction models become more sophisticated, we gain insights into the threshold levels for each trait and facet, as well as how these intersect with each other and with moderating variables to explain life outcomes. While more work is needed in this area, counselors are advised to interpret personality expression in the context of each individual's specific life.

Rehabilitation counselors with a master's degree are qualified to administer, score, interpret, and discuss results from the NEO-FFI Personality Inventory. There are long and short versions, with the longer versions encompassing an assessment of facets. For this reason, it is recommended that the longer versions be used in clinical settings when the extended time is warranted. Scores are normed by gender, so that a discussion of gender norms may be needed to help clients understand how personality traits may be received in some contexts. It is important to remember that many of the items contained in personality assessments, including the NEO-FFM assessments, ask the test-taker to respond to their preferences based on given situations. As such, the responses are reflective of behavioral tendencies, not necessarily internal states. It is possible for a person who experiences the world as a distressful place to behave as though it is not distressful. Composite scores on assessments are useful and may be accurate, but given the importance of personality, it is highly recommended that counselors use caution when interpreting scores, and it is highly encouraged to explore individual item responses with clients.

Personality researchers (Caspi & Shiner, 2005; Costa & McCrea, 1992) suggest that behavioral outcomes are better predicted by facets than factors. It is crucial to understand that as with any other assessment result, two individuals who score similarly do not necessarily represent similar individuals. In other words, resist the temptation to group individuals based on similar score results. It is important to remember that outward personality expression is only one way we express ourselves in the world. And while it is one important way in which outsiders perceive us and interpret our intentions, the five factors cannot explain all the ways in which people come to know themselves.

There are so many personality assessments; many of them are similar in format to the paper-and-pencil FFM assessments, while others are projective and require more specialized training. A discussion of other, widely used tests is beyond the scope of this chapter. The FFM was chosen based on its wide acceptance as a reliable, valid model to use with clients with demographically diverse characteristics. Further, ease of use, widespread use in research, as well as the potential for comprehensive facet exploration make the FFM highly attractive. It must also be noted that self-report assessments have their limitations. Since the relationship we have with ourselves is critically important, it cannot be overstated that exploration of perceived personality and personality expression should be explored with sensitivity and care. The best ethical practice includes multiple measures, including the use of both formal and informal methods, to assess one construct. It is recommended that more than one assessment be utilized, and that clients' feedback be considered and included in interpretation. It is also ethical to explain test limitations to clients when using them in counseling contexts. See Box 5.1 for a list of suggested personality assessments for use in clinical and research settings.

## NATURE OR NURTURE?

Probably more than any other quality, personality conjures the nature versus nurture debate. Ask any parent, and you will likely get a well thought out, and perhaps biased, explanation of young John's or Jane's personality: comments such as "He is just like his mother!" or "She just came into the world with her own personality." These statements reflect assumptions about the levels of stability and heritability of personality.

### Box 5.1 *Suggested Personality Assessments*

**Measures of Psychosocial Development** (Hawley, 1998)*: Assesses resolution of Erikson's eight developmental stages. Developmental stage assessment should be done in consideration with age and stage of client in mind.*

**Personality Assessment Inventory** (Morey, 2005)*: Assesses psychopathology and can be used to screen for clinical diagnostic and treatment planning purposes.*

**Work Personality Profile** (Neath & Bolton, 2008)*: Assesses on five scales of work adjustment domains, including Task Orientation, Social Skills, Work Motivation, Work Conformance, and Personal Presentation.*

**Revised NEO Personality Inventory** (McCrae & Costa, 2010)*: Assesses personality expression on continuums across five traits for 240 items.*

**16 Personality Factors** (Cattell, Eber, & Tatsuoka, 1988)*: A 185-item instrument that assesses normal personality expression as well as problem solving and work preferences. A good instrument to use if the intention is to measure personality and vocational interests.*

**Tennessee Self-Concept Scale** (Fitts & Warren, 1996)*: Child and adult versions are available, as is a short form.*

**Revised Developmental Work Personality Scale** (Wong, O'Sullivan, & Strauser, 2012). *Assesses adults across three factors: Work Tasks, Social Skills, and Role Models. Recommended for research purposes or in very limited clinical settings at this time.*

Are traits, in fact, inherited, and stable throughout the life span? According to behavioral genetic studies in humans, all five factors are (a) moderately genetic, (b) largely influenced by the environment, (c) appear in early life, (d) continue to develop along predictable trajectories into adulthood, and (e) genetic and environmental factors influence personality traits in men and women equally (Bouchard & Loehlin, 2001; Caspi & Shiner, 2005; Emde & Hewitt, 2001). Just as with other complex behaviors, there is no one genetic marker for personality. Research on personality, genes, and the environment reveals that environmental experiences tend to account for differences among siblings who grow up in the same family household (Caspi & Shiner, 2005). Importantly, specific environmental stimuli are believed to be responsible for these differences. From this, we can infer that factors (general temperament) are common among families due largely to genetic contributions, and environmental influences have a large impact of the development and expression of facet differences. Most personality researchers agree that the increasing focus on facets will continue to elucidate our understanding of personality development and expression (Barrick, Mount, & Judge, 2003; Caspi & Shiner, 2005; De Raad, 2000). We focus on these likely important environmental experiences when we discuss personality development in a subsequent section of this chapter.

Personality is stable, as evidenced by consistent findings of trait expression within individuals from approximately age 8 to adulthood. Personality is also considered to be dynamic, in the sense that as people age, trait expression changes over time in response to life changes. Specifically, as we get older, we tend to be less neurotic and open, and more agreeable, dominant, and conscientious (Roberts, Walton, & Viechtbauer, 2006b). Longitudinal and repeated measure investigations on personality reveal moderate personality changes from childhood to adulthood, indicating that personality changes somewhat, but not drastically, nor is it largely static, as once believed (Fraley & Roberts, 2005). These changes decrease with age, indicating that personality does evolve as we age, and then this evolution slows down as our life presents us with fewer opportunities to adjust. As the time between the test–retest increases, the stability decreases, indicating that with time, more change in personality expression can be expected, but not drastically across any of the five factors, or by gender, or by assessment method. So, personality is a dynamic human quality that responds and adjusts to changes over time, but not drastically, and only slightly less consistent than cognitive ability, another human trait that is viewed as being stable, heritable, and (at first seemingly contradictory) largely responsive to the environment.

Findings specific to developmental stages and personality changes point to the importance of transitional stages (from adolescence to middle adulthood) due to the many and diverse roles and identity shifts. Personality continues to change throughout adulthood, but only modestly after around age 50 (Caspi & Shiner, 2005). When investigating the degree of changes at the factor and facet level over time, patterns emerge for large samples of the population. Specifically, people tend to become more agreeable in later adulthood (ages 50–60), and only more conscientious as they develop in adulthood to middle adulthood. Neuroticism shows the greatest decrease in young adulthood, while dominance (a facet of extraversion) increased from adolescence to middle age, and sociability (another extraversion facet) first increases in adolescence and young adulthood, before decreasing along certain points in adulthood and late adulthood (Roberts et al., 2006b). Facets of openness increase in adolescence and young adulthood, with a steady decline in adulthood to late adulthood (Caspi & Shiner, 2005; Fraley & Roberts, 2005). Overall, longitudinal research results reveal young adulthood as a vibrant stage of personality development, with more changes than other life stages (Roberts et al., 2006b). Viewed from a developmental perspective, this makes sense. From ages 20 to

40, life provides ample opportunities for personality shifts as people strive to adapt to their environments and important relationships, and as people occupy multiple social, family, and occupational roles.

Even as we know more about personality phenotypes, we must still consider these in the context of how specific phenotypes are expressed dependent on environmental factors. In other words, the environment is a significant moderator of inherent personality expression. Alternatively, people with certain phenotypes are more inclined to moderate their environments, by exposing themselves to some environments more than others. As our personality traits propel us toward certain environmental stimulus, we are rewarded by an experience of person–environment fit, and thus, perceived positively. Most will seek out this kind of reward over and over so that it becomes increasingly difficult to disentangle the influence of nature and nurture. For most of us, we cannot trace the origins of trait reinforcement over time. There are exceptions, of course, most notably people who survive trauma (Evans & Wachs, 2010). Chaotic and traumatic environments can alter one's biology by affecting neurotransmitter levels, which can result in higher levels of neuroticism and lower levels of agreeableness, or at least the facets of these factors related to anxiety, depression, and trust.

One of the most important ways in which we can facilitate self-awareness for clients is to help light the path from a traumatic event or events to the present. Using a cognitive-behavioral lens, we can explore the ways in which clients experience feelings, which translate to thoughts and actions. These tendencies to feel, think, act, and interact with others in given circumstances are perceived as components of a personality. By helping our clients understand (1) the origins of personality expression, (2) its utility as a reinforced coping mechanism, and (3) as a malleable tool that we can shape, clients can come to accept current trait expression, and gain the confidence to control trait expression as desired in contexts where this may be beneficial. *Thus, personality is viewed as one mechanism in which we can choose to express ourselves in the world, and one in which adaptations are possible.* Compare this understanding to an outdated view of personality as an unalterable quality that defines selfhood. Modest changes in personality can lead to significantly different outcomes in life, including work and career trajectories. The intersection of personality and life outcomes is discussed in more detail toward the end of this chapter. Now that we have a better understanding of what personality is, and how our genes and environment contribute to its overall expression, let us now focus on important environmental experiences across the life span that contribute to trait and facet development.

## PERSONALITY DEVELOPMENT

Any counseling theories textbook will provide an overview of the major theoretical explanations for the development, structure, functioning, and disorder of personality. While not all theories emphasize in equal measure the importance of early childhood experiences on personality, all do acknowledge that early childhood events are influential, and that consideration of all human developmental stages are necessary (Sharf, 2000). We must consider the entire life span and how each developmental stage presents opportunities for people to express traits and facets, receive feedback for the expression, and thus reinforce or adjust accordingly. A personality begins to emerge as soon as the organism is able to express, receive feedback, and continue to express similarly or adjust, dependent on the feedback and reaction received.

Attachment theory (Ainsworth, 1989; Bowlby, 1988) has contributed tremendously to our understanding of how early caregiver–child bonding contributes to our experience of the world, and subsequent expression of those experiences in the form of coping

strategies, self-identity, ease of entering and navigating relationships, and development of personality traits. In sum, attachment theory explains the evolutionary origins of children's attachment to caregivers (Cassidy & Shaver, 1999). In order to survive, children communicate hunger, safety, and comfort needs to caregivers. Children who remained "attached" to their caregivers (usually the mother) had much higher survival rates compared to children who did not remain attached (Cassidy & Shaver, 1999). The caregivers respond in ways that either promote optimal attachment or not. In both humans and animals, infants attach to caregivers who do more than feed them by providing psychological comfort (Cassidy & Shaver, 1999). The nature of the bonding at young ages is indicative of later personality development, including emotional stability, social interactions, and exploration tendencies (Ainsworth & Bowlby, 1991). The intense emotional bonding that occurs in infancy between child and caretaker predicts long-term psychological adjustment with impressive robustness. The child–caretaker attachment process will result in lasting security if this bonding occurs without disruption, and in lovingly secure ways. Alternatively, variations of insecure attachment result when the child must balance the evolutionary drive to maintain closeness with the caretaker, while psychologically protecting oneself from the disrupted bond. Scenarios of disrupted bonding include repeated threat of disruption, separation from caretaker, either physical or psychological, or neglectful attention. This leads to clever coping within the developing child who must reconcile intense emotions for the caregiver with inconsistent and distressing nurturing styles. A child who grows up under this type of attachment system is at risk for developing avoidant or ambivalent attachment tendencies in adulthood, which can lead to further disruptions in relationships, reinforcing this maladjusted component of the personality (Cassidy & Shaver, 1999).

Insecure and negative attachment experiences in early childhood, middle childhood, or emerging adolescence can contribute to negative adult personality development. Disrupted or insufficient attachment can manifest in a range of personality expression from the pervasively disordered personality on the extreme end, to contained and specific facet expressions of anxiety, anger, vulnerability, trust, straightforwardness, openness, and sociability, among others, all of which will be expressed differently in each person depending on the unique bonding experiences. With appropriate counseling interventions, adults who experienced the trauma of negative bonding can earn secure attachment as they work through the pain of a difficult attachment system learned in childhood. Adults in a safe counseling environment can learn to connect these early painful, disrupted experiences with their current adult attachment tendencies and personality facet expression, with the goal of earning the security they were not provided as children. Rehabilitation counselors can provide a safe space for such exploration if a strong working alliance is present.

Using Erik Erikson's psychosocial framework for identity development, we can trace the common life milestones that shape our identity, and thus, our external personality trait expression. According to Erikson, most people develop along the life course during eight distinct stages that present crises or conflicts (Erikson, 1968). How a person resolves a given crisis will contribute to the progression to the next stage and overall personality development. If a person is able to resolve the major conflict during a developmental stage, the person is thought to carry that resolution throughout the life span as it is folded into the other stage resolutions (Erikson, 1963, 1968). Erikson used the term "crisis" or "conflict" because in his view, each stage presents the individual with life circumstances that have not yet been navigated, which creates a sense of vulnerability.

Each new challenge is experienced by the individual as a crisis until it is resolved, either mostly positively or mostly negatively. We enter new stages according to what is both required of us in the external world and our capacity at a given age. For instance, crawling

as a toddler allows for greater independence, which is aligned with the *Autonomy Versus Shame and Doubt* stage. Positive resolution of this stage results from loving and attentive caregivers facilitating safe, guided exploration. It is not difficult to imagine a child who positively resolved this stage to develop excitement seeking (E), low levels of vulnerability (N), assertiveness (E), and willingness to try new activates (O). Negative resolution of this stage results from inattentive, disrupted, or inconsistent facilitation of safe exploration from caregivers. Trait and facet development is more likely to result in anxiety (N), self-consciousness (N), vulnerability (N), high levels of dependence on others (A), and less openness to try future, new activities (O). The degree to which each facet develops within the child depends not only on the environmental influences, but also on the genetic capacities inherited for each trait. Two children with very similar environmental conditions may have different genetic capacities, and thus, facet development will be different.

Middle childhood is a time where children across cultures attend school, and where the focus of their energy is on learning new behaviors and skills, including making friends. Erik Erikson termed this stage *Industry Versus Inferiority* based on the central theme of the developmental conflicts presented during these years. Children develop toward becoming either industrious or (to use Erikson's terminology) inferior, depending on caregiver and role models' facilitation of environments, and feedback of trait and facet expression as they learn behaviors, skills, and interact with peers. They come to know themselves, and will outwardly express this part of their identity based on the feedback they receive about their schoolwork, chore completion, after-school activities, and playground interactions from parents, teachers, coaches, and peers. The factor development that aligns with this stage includes conscientiousness, extraversion, and agreeableness. See Box 5.2 for the summary of Erikson's stages and examples of requirements and capacities for each stage.

### Box 5.2 *Erik Erikson's Developmental Stages*

*Trust Versus Mistrust*: Infancy to 18 months. Children communicate needs first by crying and then by smiling, reaching, and gazing. The caretakers' responses to the child's attempts to communicate will facilitate a sense of safety or not. A crying infant in need of comfort or food will cry out, and consistently attending to these needs in loving ways contributes to the feeling of safety. Inconsistent or unloving attention to the child's needs contributes to the feeling of an unsafe world where needs are not necessarily met, and attempts at communication are unwelcome or misunderstood.

*Autonomy Versus Shame and Doubt*: Toddler (18 months to 3 years). A child is able to explore the world first through crawling and grasping and then through walking. A child learning to explore his or her world learns to be self-sufficient and independent when caretakers lovingly encourage supervised exploration and provide comfort when needed, and reinforcement for successful exploration. A child who is not consistently encouraged to explore safely is more likely to feel insecure and thus more inclined to rely on others for exploration needs. This child is more likely to express feelings of dependence and insecurity rather than independence.

*Initiative Versus Guilt*: Early childhood (ages 3 to 6). A child at this stage is walking, speaking, and constantly seeking stimulus in order to make sense of the world. Children tend to experiment with both people and objects in order to observe outcomes. Lovingly attentive caretakers encourage this type of experimentation by reinforcing the positive outcomes, tolerating negative outcomes, and supporting a child when unexpected outcomes occur. A child with caretakers such as these will likely develop a sense of enjoyment from such experiments and start to see himself or herself as having governance over outcomes as he tries new behaviors. This facilitates a sense of initiative. Children who are not encouraged to explore and experiment in this way are less likely to appreciate their own sense of governance in the world, and are more likely to feel confused or overwhelmed by trying new behaviors.

*Industry Versus Inferiority*: Middle childhood (Grade school years). Children in this stage are slowly learning to take on more responsibility as they attend school, are assigned homework and chores, and interact with peers on the playground and in other extracurricular activities. Children who are provided clear guidelines for what is expected of them regarding school attendance and tasks, behavior at home, and on the playground will learn the joy of accomplishment and satisfaction when completing tasks that are appropriate to their level of capacity. It is important that tasks be developmentally appropriate, and that expectations are consistently communicated by parents and teachers. Children who are not provided clear guidelines for behavioral task completion at home and school are more likely to develop low confidence in their

*(continued)*

abilities. Inconsistent feedback regarding behavioral tasks completion or unreliable or meaningless feedback can also contribute to low confidence regarding their contributions.

*Identity Versus Identity Confusion*: Adolescence. Teenagers and young adults in this stage are completing their education and are exploring the roles they want to occupy as they discover how they may best contribute to the world. Caretakers, teachers, school counselors, and coaches, among others, provide feedback about how skills and talents are received. Helping young adults to accurately and realistically appraise their abilities and limitations and appreciate their strengths is important for positive resolution in this stage. Appreciation for strengths can be applied in work settings, relationship settings, and recreational settings. Teens and young adults who are not appreciated by caretakers and role models for their talents are at risk of feeling uncertain about the roles they can occupy.

*Intimacy Versus Isolation*: Young adulthood (mid-20s to 40s). Adults in this phase of life are usually actively seeking friends and potential partners with whom they can share life goals. Casual dating with low commitment levels will continue for those who are not confident that they can provide support and love to another person, as they maintain their own sense of self. Adults who feel confident that they can navigate the risks involved with commitment are more likely to resolve this stage positively.

*Generativity Versus Stagnation*: Middle adulthood. Adults in this stage are confronted with the realities of their legacy on the world as they transition from establishing themselves in their careers and family lives, into a phase fulfilling personal goals at work and home. Adults who successfully resolve this stage are able to shift their focus away from role fulfillment obligations to personal rewards that provide satisfaction derived from mentoring and working toward lasting positive impact in work and personal settings. Adults who have low confidence in their ability to give back to a younger generation are more likely to feel as though they have failed. A sense of regret for not pursuing meaningful goals that highlighted their unique gifts may be experienced.

*Integrity Versus Despair:* Late adulthood. Adults in this stage feel confident that they lived their life well, have few regrets, and accept their past mistakes, past hurts, and accept the inevitability of death without excessive anxiety. Adults who resolve this crisis negatively are more inclined to repeatedly review their past mistakes, have difficulty accepting the past, and experience excessive fear regarding their inevitable death.

### Discussion and activity questions:

1. As you read each personality trait and corresponding facets, imagine the contexts for which we operate, including work, school, home, community, and recreation. Are some facets valued in certain contexts but not others? Which ones?
2. For each developmental stage, identify the likely personality factors and facets that align with the expression–feedback–reinforcement or adjustment process. For a negative resolution, negatively perceived facets are more likely to develop; for a mostly positive resolution, positively perceived facets are more likely to develop.
3. Explore and explain the specific ways in which health, relationships, and work are connected. Outline a treatment plan for a client who is expressing negative work personality, and subsequently experiencing reductions in health and relationship quality.

Erikson was careful to point out that positive resolution should not be interpreted as "achievement," implying complete and final resolution (Erikson, 1959). Rather, he explains that we all acquire a ratio of positive to negative resolution, where more positives in the ratio result in future navigation of developmental crises with the advantage of strengths, which are integrated into the overall development and personality formation (Erikson, 1959). Additionally, Erikson believed that resolution of a mostly negative conflict can be revisited at ages typically beyond the initial developmental stage when the conflict first occurred and, a rebalancing toward a mostly positive resolution can be realized given appropriate intervention, such as counseling.

Erikson and other developmental theorists of his era have been criticized for viewing development from a Western male perspective. This limitation is particularly relevant when considering the later stages of development, when life experiences diverge considerably between the genders and among groups, and will likely continue to do so as social roles continue to evolve for many people. The early years of life are more likely to be similar across cultures and between the genders as young girls and boys in multiple cultures are exposed to many parallel experiences at home and school. As we age, the cultural norms and expectations for work and family vary considerably.

Counselors are advised to keep the limitations of Erikson's model in mind, while hopefully not dismissing the useful properties embedded in his conceptualization of human development.

## IDENTITY VERSUS PERSONALITY

To a large extent, our personalities and identities overlap. An identity is how we define ourselves, and may have parts that are subconsciously unknown to us; our personality is how that identity is expressed in the external world. If we understand personality from this perspective, we can see that personality is malleable, and can be assessed in terms of our behaviors, thoughts, and feelings as we uncover our identity. As counselors, we know that behaviors, thoughts, and feelings can change, and with appropriate intervention and support, lasting change is possible. It is important to recognize that we may perceive our personality traits differently from how others perceive us. One important goal for counselors is to facilitate accurate client insight regarding selfhood. Congruence between the self and others' perceptions will lead to improved relationship with the self and others, and greater sense of control over life outcomes.

The brief overview of Erikson's developmental stages and resolutions explains how individuals perceive themselves. It is important to understand that how we identify aspects of ourselves is not always consistent with how we express this component of our identity to outsiders. This becomes particularly salient when we conceptualize people who experienced a negative resolution of a developmental stage. For example, imagine a boy who acquired a hearing impairment due to a prolonged infection at age 3. The acquired disability can influence the expression–feedback–reinforcement/adjustment process of personality development. Imagine in his case, his disability alters the way in which his caretakers interact with him and his advancing development. Subsequently, he resolved the third and enters the fourth stages of development with a sense of confusion, doubt, low initiation, and reduced enjoyment in exploration. His resolution of these stages has implications on subsequent resolutions. This continues in life as he is inclined to feel wary and unconfident in new situations. He may be aware of these feelings at times, and less aware in other contexts. He may have learned to compensate for these feelings by projecting a sense of control and confidence in new and untested situations. It is not at first apparent to outsiders that this individual is compensating and thus projecting an outward personality trait that is inconsistent with his view of himself. On the one hand, he figured out a clever coping strategy in a competitive world where outward expression of uncertainty may result in negative life outcomes. However, this client may be so accustomed to implementing his compensation strategy that with time he becomes less aware of his actual feelings about himself, and thus cannot explain the high levels of stress he experiences in new situations, or in contexts for which he cannot control or predict outcomes. Further, his consistent compensation strategy over time could lead to an "imposter" syndrome, which continues to increase anxiety. Eventually, his compensation strategy will erode, which is when things are more likely to unravel as more time and energy must be devoted to managing his anxiety and figuring out new ways to compensate. Successful counseling interventions at this point might include personality assessment and discussion of personality expression, exploration of early attachment systems, exploration of identity resolutions, and exploration of learned compensation strategies, with the intention of increasing awareness, resolving discrepancies, connecting the past with the present so that his self-perception is congruent with his external personality expression. Congruence will reduce his need for the maladjusted coping strategies.

## PERSONALITY EXPRESSION IN MAJOR LIFE DOMAINS: WORK, HEALTH, LOVE

In our work with clients wishing to make changes in one or more life domains, we can empower clients to leverage positive personality traits in specific domains where relevant, while supporting adjustment of other traits or facets in domains with unwanted outcomes. Keep this in mind as you read about personality in work, health, and relationship domains.

Personality researchers have conducted numerous studies and concluded that personality predicts life outcomes as well as, or better than, *socioeconomic status* and *intellectual functioning*, the long-held "gold standard" criteria for determining life outcomes (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). Specifically, personality traits are strongly related to health and mortality, work and career outcomes, and marital and relationship satisfaction and dissolution. The mean effect sizes for the relationships range between 0.20 and 0.30, which should be interpreted as meaningful and impressive relative to other criterion variable relationships. The effect size coefficients related to personality should be seen as highly meaningful given that modest adjustments in personality can significantly alter important life trajectories.

The leading causes of preventable deaths in the United States are related to behaviors such as tobacco use, poor diet, low physical exertion, excessive alcohol use, risky sexual behaviors, risky driving, and shootings. Many of these behaviors lead to accidental deaths, or cardiovascular disease, AIDS, diabetes, and cancer. Conscientiousness has consistently been connected to all of these behaviors with large effects, indicating the importance of personality in health behaviors and health outcomes (Bogg & Roberts, 2004). In fact, conscientiousness can be measured as young as age 8 to predict disease rates in adulthood and longevity (Roberts et al., 2007). Longitudinal results reveal that high levels of conscientiousness are more strongly related to longevity than the effects of chemotherapy on cancer and coronary bypass surgery at the 5-year survival rate (Meyer et al., 2001).

A large, nationally representative sample of adults living in the United States aged 25 to 74 found that four of the big five personality traits are significantly related to a range of health conditions including the leading mental and physical illnesses contributing to mortality (Goodwin & Friedman, 2006). Due to the large sample size ($n = 3000+$), significant differences between people with and without disorders were not surprising. To account for this, effect sizes were calculated using the reported means, standard deviations, and correlations between means (Cohen, 1988). Small to medium effects were found for conscientiousness with expected directionality for depression ($d = 0.16$), panic attack disorder ($d = 0.16$), general anxiety disorder ($d = 0.20$), substance dependence ($d = 0.53$) and diabetes ($d = 0.27$). Small to medium effects were found for extraversion for depression ($d = 0.17$), general anxiety disorder ($d = 0.22$), and stroke ($d = 0.42$). A small effect was found for agreeableness between those with and without substance use disorder ($d = 0.25$). And large to very large effects were found on neuroticism for the mental health disorders of depression ($d = 0.65$), panic attack disorder ($d = 0.75$), and general anxiety ($d = 1.27$), with a small effect for substance use disorder ($d = 0.18$). Openness was not found to have meaningful effects for most of the disorders, with the exception of cigarette smokers reporting higher rates of openness compared to nonsmokers ($d = 0.14$).

Just as with health, personality makes a difference in relationships. Specifically, high neuroticism, low conscientiousness, and low agreeableness predict divorce rates better than socioeconomic status (Roberts et al., 2007). Agreeableness and extraversion are the best predictors of friendships forming in childhood (Ozer & Benet-Martinez, 2006). Agreeableness also seems to protect kids from victimization and bullying, a scenario which many kids with disabilities are at increased risk of experiencing (Ozer &

Benet-Martinez, 2006). Extraversion predicts popularity and social support, which can moderate both health and work outcomes. High neuroticism and low agreeableness predict relationship dissatisfaction, abuse, conflict, and eventual termination (Ozer & Benet-Martinez, 2006). When looking at self and partner reports of personality in dating, engaged, and married couples, neuroticism was the best predictor of relationship satisfaction for all three groups. While facets were not measured in this study, it is not difficult to imagine the "N" facets of hostility, anger, and self-doubt contributing to relationship quality. Among married couples, extraversion, agreeableness, and neuroticism all predicted marital satisfaction, while extraversion, conscientiousness, and neuroticism predicted relationship quality among engaged couples. The self-reports of conscientiousness predicted relationship quality for both dating and engaged dyads. Perhaps in the earlier stages of a relationship, people who attend to the relationship in a conscientiousness manner are more likely to be perceived by their partners as highly attractive and viable mates (Holland & Roisman, 2008).

Personality traits and facets are clearly relevant to health status, disability, and relationship outcomes. It is important for rehabilitation providers to educate clients about prevention of negative life outcomes that are strongly related to personality expression. It is also important that rehabilitation professionals connect the impact of one domain, such as health, to the outcomes in other domains, such as work. For instance, a person struggling to appropriately manage health and disability may be more motivated if the connection to health and work outcomes is made explicit. Similarly, clients struggling to make necessary work adjustments may benefit from a greater appreciation of how work and relationship outcomes are connected. By helping clients understand how personality is connected to life outcomes, and how these life outcomes are related to each other, we can improve client motivation for modest personality adjustments, which can have a significant impact on life outcomes.

## PERSONALITY AND WORK

Research results related to career development and vocational behavior for the general working public have linked the FFM with important constructs and outcomes such as vocational identity (Holland & Gottfredson, 1994; Holland, Gottfredson, & Baker, 1990), Holland RIASEC types (Arbona, 2000), employment status (DeFruyt & Mervielde, 1999), job satisfaction (Furnham, Petrides, Jackson, & Cotter, 2002; Holland & Gottfredson, 1994; Judge, Heller, & Mount, 2002), job performance (Barrick & Mount, 2006; Hogan, 1996; Judge, Higgins, Thoresen, & Barrick, 1999; Tett, Jackson, & Rothstein, 1991), job turnover (Salgado, 2002), income and career success (Judge et al., 1999), and career satisfaction (Lounsbury et al., 2003). Within populations of people without disabilities, the personality traits of conscientiousness, extraversion, and neuroticism were linked to career self-efficacy and job satisfactoriness (Hartman & Betz, 2007). Conscientiousness and extraversion have consistently been positively associated with desirable job satisfactoriness, and high levels of neuroticism are consistently associated with reduced job satisfactoriness and reduced work self-efficacy (Hartman & Betz, 2007). High conscientiousness and low neuroticism were found to predict general work performance across a range of vocations (Barrick et al., 2003). Agreeableness was found to relate significantly to interpersonal job performance measures, extraversion significantly related to job performance pertaining to sales and leadership roles, and openness was related to learning new tasks on the job and being flexible when needed (Barrick & Mount, 2006; Mount, Ilies, & Johnson, 2006).

When investigating counterproductive work behaviors, defined as deviant behaviors likely to lead to termination or demotion, low agreeableness was found to predict

deviant behaviors relating to interpersonal interactions on the job, such as being rude, cursing, or bullying others. Low conscientiousness and high neuroticism predicted deviant behaviors pertaining to the organization, such as theft and shirking responsibility (Mount et al., 2006). Another study investigating counterproductive work behaviors and personality found that facets of neuroticism increased for people more inclined to demonstrate the counterproductive work behaviors, while facets of conscientiousness and agreeableness decreased over time for workers who reported higher rates of negative work behavior (Roberts et al., 2006a). The authors tracked personality change over time and concluded that engagement in negative behaviors at work promotes negative personality expression over time. If continued behavior fosters personality development, the importance of positive work mentors becomes clear: specifically, mentors who demonstrate high levels of work investment, defined as people who value and respect their places of employment, and behave in ways that demonstrate this value (Roberts et al., 2006a). Rehabilitation providers can identify appropriate work role models as one way to strengthen work personality, work investment, and work adjustment.

In a multiphase study of junior high and high school students investigating academic effort, achievement, efficacy, and personality, the trait of conscientiousness was found to predict academic effort across a range of subjects more than other variables such as efficacy and achievement (Trautwein, Lüdtke, Roberts, Schneyder, & Niggli, 2009). Similarly, measures of work personality and work engagement were significantly related to academic effort among college students, with personality being the unique factor for the men (Strauser, O'Sullivan, & Wong, 2012). These studies point to the importance of personality and academic efforts at the junior high, high school, and college levels. Given the importance of academic outcomes on vocational outcomes, strengthening students' personality expression at young ages with the intention of continued positive expression will likely enhance academic and vocational outcomes for clients.

## PERSONALITY, WORK, AND DISABILITY

Much less work has been done to investigate personality and work outcomes on samples of people with disabilities, but recent exploratory research results indicate confirmation of some findings, as well as new findings. Specifically, conscientious and emotionally stable individuals had higher levels of work efficacy, a finding consistent with nondisabled workers (O'Sullivan, Strauser, & Wong, 2012b). Additionally, the FFM of personality was a better predictor of job tenure compared to work self-efficacy. And among the five factors, neuroticism and openness contributed to the length of employment for persons with disabilities. The significance of openness was surprising since this trait was not related to general work outcomes in samples of nondisabled workers. A follow-up analysis revealed that these two factors are relevant for people with disabilities who also had low levels of education (O'Sullivan et al., 2012b). This is important as people with disabilities are less likely to obtain higher education, compared to the general population. The findings from this investigation may have something to do with the positive correlations among high "O" scores and higher levels of education and general intelligence (Costa & McCrae, 1992; Judge et al., 1999). Results should be replicated before interpretation of findings is applied to rehabilitation counseling settings. If replication results confirm the importance of openness predicting vocational outcomes for people with disabilities, there is good news. A randomized-control study found that cognitive training interventions significantly enhanced openness among older adults (Jackson, Hill, Payne, Roberts, & Stine-Morrow, 2012). This intervention may be relevant for adults with a range of

disabilities who could benefit not only from improved cognitive abilities but also from the direct positive impact on personality expression.

## EMERGING TRENDS AND FUTURE DIRECTIONS

Rehabilitation research has a long and influential history addressing work outcomes and adjustments to work behaviors for persons with disabilities. Specific work personality measures have provided invaluable tools for rehabilitation counselors, educators, and researchers as well as those beyond the field of rehabilitation (Neath & Bolton, 2008). One established custom in the field has led to a focus on adult work personality and adjustment in the workplace, with little emphasis given to disability onset in early stages of life as a way to investigate negative work expression. Emerging research on the developmental work personality seeks to explain the origins of workplace personality expression. The Developmental Work Personality (DWP) model (O'Sullivan & Strauser, 2010; O'Sullivan et al., 2012a; Strauser & Keim, 2002) synthesizes Bandura's (1986, 1989) social learning theory, Erikson's (1968) developmental stage theory, and Neff's (1986) ideas on workplace personality to explain how the home and school environments, and the role models embedded in these environments, influence identity during the grade school years, which continues into adult work personality (O'Sullivan & Strauser, 2010; Strauser, Waldrop, & Ketz, 1999). The DWP model outlines how role models in childhood influence the developing personality related to (a) completion of school and home tasks and (b) social and interpersonal skills of relating to peers and authority figures. These two primary domains of childhood development at this stage are believed to strongly influence critical adult work behaviors of *task completion* and *social skills,* which align with *conscientiousness* and *agreeableness* (O'Sullivan & Strauser, 2010). Validation of the scale items revealed evidence for a three-factor structure consisting of *work tasks, social skills,* and *role model* scales. Construct validity of the instrument was established, as was adequately good reliability of the subscales (O'Sullivan & Strauser, 2010; Wong, O'Sullivan, & Strauser, 2012).

The use of this promising instrument could shed light on differences among the developmental work personality in samples of people with disability. This is important for rehabilitation counselors and educators as we strive to explore and explain pathways that lead to the need for counseling interventions, such as educational and vocational failures. There are many external reasons for failed education and vocational pursuits, including self and social stigma pertaining to disability, systemic racism, sexism, and other "ism" that prevent groups of people from attaining goals, along with numerous individual barriers that must be explored with each client. One overlooked reason may be personality expression: specifically, personality development and expression as it pertains to work. The following is meant to provide a summary of emerging research findings related to the developmental work personality. While far from conclusive, the summary is meant to provide thought and discussion as you conceptualize rehabilitation clients in educational and vocational contexts.

The DWP model has demonstrated factor integrity in samples of people with and without disability (O'Sullivan & Strauser, 2010; Wong et al., 2012). In samples of people receiving state vocational rehabilitation services, scores of the DWP scale significantly related to scores of the Work Personality Profile (Neath & Bolton, 2008) and the *work tasks* scores significantly related to the FFM trait of *conscientiousness*, while the *social skills* scores significantly related to *agreeableness*. The three factors were confirmed in a sample of adults without disability, and the scores of the DWPs significantly predicted resolution of Erikson's fourth stage of development, *Industry Versus Inferiority* (Wong

et al., 2012). Among a sample of nondisabled college students, the developmental work personality was found to predict academic engagement and effort, with a significant portion of the variance in effort (36%) explained by the DWP for men, particularly the *work tasks* and *role model* components (Strauser et al., 2012).

Among adults with disability, the developmental work personality factors of *work tasks* and *social skills* were significantly lower among persons with psychiatric disabilities compared to those with other categories of disability (O'Sullivan et al., 2012). And among young adult cancer survivors, the developmental work personality was significantly lower compared to young adult peers without a disability (Strauser, Wagner, Wong, & O'Sullivan, 2013). Importantly, when investigating the young adults with cancer and the age of onset for their cancer diagnosis, the group with the lowest DWP was the group that was diagnosed between the ages of 6 to 12. This aligns with Erikson's 4th stage of development, and is consistent with the DWP theory outlining when work personality develops. This age-of-onset group scored significantly and meaningfully lower on the *work task* component of the DWPs compared to groups diagnosed at ages prior to 6, or after age 12. Continued research into age of onset, disability category, and measures of personality will provide more clarity regarding the developmental trajectory of personality for people with disabilities. As we improve our understanding of the developing work personality, we can design enhanced interventions related to work outcomes for people diagnosed with a disability during a developmental stage that may disrupt an industrious resolution. This may be relevant at ages lower than is typical in vocational rehabilitation settings. When working with adults with low work personality and chronic underemployment or unemployment, interventions designed to resolve the 4th stage of development may be useful.

## CONCLUSION

This chapter outlined a major theoretical framework for understanding personality development and expression, as well as provided research findings that highlight the significance of personality in life domains, including work. One challenge facing rehabilitation professionals today includes educating clients about the connection between personality and many life outcomes, including work, and how work, relationships, and health, are interrelated. The competitive employment rate for persons with disabilities continues to lag behind the general population despite advances in treatment and policy (U.S. Department of Labor, 2012). For this reason, rehabilitation professionals should embrace innovative methods to facilitate positive work adjustment after a change in health status or diagnosis beyond typical methods. Personality assessment and adjustment for optimal work outcomes may be a necessary addition in rehabilitation planning for many clients.

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# *Chapter 6: Theories of Career Development and Work Adjustment*

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***After reading this chapter, you should be able to:***

1. Describe the career development theories of Donald E. Super and John Holland.
2. Describe the theories of work adjustment including the Minnesota Theory of Work Adjustment and the Hershenson Theory of Work Adjustment.
3. Describe the Developmental Work Personality model.

Work has a large influence on one's ability to meet his or her needs. Consequently, work has historically been an intricate part of the rehabilitation counseling profession. According to Blustein (2006, 2008), work provides a means by which individuals survive, derive power, connect socially with others, and attain self-determination and well-being. This chapter provides an introduction to the relevant theories of career development and work adjustment that are pertinent to rehabilitation practitioners. While these theories are used in a variety of disciplines and specialties, they are particularly applicable to rehabilitation counselors who assist individuals with disabilities because they provide an important framework necessary for research and effective intervention practices. Career development and work adjustment theories are particularly functional to practitioners because they provide a way to understand current vocational behavior, provide a common language of communication among practitioners, can guide research-supported interventions to influence positive behavior change, and can support maximizing an individual's ability to function independently. Furthermore, career development and work adjustment theories are a tool to guide the development of the working alliance between a rehabilitation counselor and individuals with disabilities. This relationship is important in accomplishing work integration and these theories provide the foundation for facilitating appropriate goals and

practices within the working alliance. By incorporating these theories into research and practice, rehabilitation practitioners are able to maximize work adjustment for individuals with disabilities.

The career development and work adjustment theories in this chapter approach careers from a combination of person–environment and developmental approaches. The person–environment approach takes into account the interaction between a person and the work environment. The effectiveness of this interaction hinges on particular person and environment characteristics. In other words, a person may or may not fit in a particular work environment depending on the interaction between the two. The developmental approach primarily focuses on the progression of an individual's career experience throughout time. For instance, an individual will differ in skills sets, work goals, work self-concept, and so forth during childhood, adolescence, and adulthood. While each of these career development theories has some combination of the person–environment and development approaches, each theory remains unique. Therefore, the primary goal of this chapter is to provide an overview of the primary developmental and person–environment theories related to career development and work adjustment. Social Cognitive Career Theory (SCCT) and Cognitive Information Processing (CIP) are covered in separate chapters of this book as we feel they warrant unique attention. This chapter starts by providing detailed descriptions of the historically important and foundational theories of John Holland and Donald Super that focus primarily on career development. We then turn our attention to theories that focus on the process of work adjustment, a process that we feel is often overlooked and underdeveloped in both the rehabilitation and vocational research and literature.

## THEORIES OF CAREER DEVELOPMENT

Career development is a concept that describes the complex, multifaceted, life-long process of an individual's career experience. It encompasses both structure and long-term changes of career behavior (Herr & Cramer, 1992). Thus, career development theories seek to explain the complicated components that make up an individual's career experience. Donald Super and John Holland were some of the first to tease apart the complexity of career development. The many elements that influence the complex experience of career development are outlined in their theories and will be described in detail. While Holland and Super's theories were among the first career theories, they have thrived as working theories despite the emergence of new career development theories. Their relevance has sustained over time because of their current utility to rehabilitation practitioners in providing research-driven assessments and intervention practices for individuals with disabilities. Also, Holland and Super remain pertinent because they have been precursors to the construction of later theories of career development and work adjustment. As a result, Super and Holland's theories of career development are outlined first and set the stage for work adjustment theories that are described later in this chapter.

### *Super's Career Theory*

Donald E. Super's career theory expresses work from a primarily developmental perspective. Nonetheless, the person–environment approach to the career experience is a part of Super's career theory as well. The fundamental feature of Super's theory is the assertion that career choice develops over time. This feature explores the

change in vocational choice and ability as an individual matures through life stages. This experience is identified by Super as the life span. Super's theory also explores influencing roles individuals gain and maintain in a variety of environments (Super, 1980). From this approach, Super's career theory has some person–environment components. Both the developmental and person–environment approaches to Super's career theory will be further examined to illustrate the complexity Super's theory possesses.

To begin with, the person–environment interaction that occurs in the *life space* of Super's theory has two important terms: *life roles* and *theaters*. The nine identified life roles include child, student, leisurite, citizen, worker, spouse, homemaker, parent, and pensioner. These roles are not all encompassing, nor will everyone experience every role. Similar to Super's life roles, Super identified four theaters (or environments) including the home, community, school, and workplace. Roles cultivate within one or more environments (Super, 1980). For instance, the role of the student can emerge in the theater of school as well as the home. Theaters and roles are meaningful because of their impact throughout the life span. Roles will vary in significance depending on an individual's goals, self-awareness, emotional involvement, and the temporal importance the role has in a specific situation (Super, 1980). Furthermore, the amount of roles occupied by an individual is determined by the specific stage of development the individual is in within the life span. Earlier and later stages typically occupy fewer roles than the middle stages.

For Super, the developmental *life span* is described across five stages of development. Coping within each of these stages is determined on a cognitive and affective level. To manage the demands of the environments within each stage, an individual acquires *career maturity*. Essentially, career maturity is the psychological, physical, and social readiness an individual possesses to cope with the demands of the environments presented within a specific stage in the life span (Super, 1990). The five stages of the life span include *growth, exploratory, establishment, maintenance,* and *decline*. The *growth stage* is from birth to 14 years (Salomone, 1996). The demands of this stage manifest through the child and student roles as well as the home, neighborhood, and school theaters. Occupational preferences reflect emotional needs as opposed to ability and interest during this stage. The *exploratory stage* is from age 15 to 24 (Salomone, 1996). This is when an individual is exploring an array of activities, roles, and environments. Exploration may not be goal oriented at first, but with time it becomes more focused on specific interests and abilities (Super, 1980). The *establishment stage* is from age 25 to 44 (Salomone, 1996). During this stage, an individual is establishing their roles including their roles related to work. It is not uncommon for the average person to typically change jobs several times while still in the establishment stage (Super, 1980). The *maintenance stage* is from age 45 to 64 (Salomone, 1996). During this period of time, an individual is maintaining their position at a particular job. Technology and the emergence of younger career seekers are a competing force during this stage. The primary demand during the maintenance stage is maintaining control over an individual's career (Super, 1980). The last stage is the *decline stage* that is from age 65 years onward (Salomone, 1996). At this stage in life, an individual is disengaging in several activities in life. The number of roles an individual possesses begins to decrease at this point in time, including work (Super, 1980). While each of these stages is described with specific ages and demands, they are meant to be flexible and approximate to each individual.

Super's theory is also represented by understanding the terms *maxi-cycle, mini-cycle*, and *re-cycle*. The maxi-cycle, mini-cycle, and re-cycle are constructs to Super's theory that describe the adaptability and flexibility his theory has to each unique individual. The previously described five stages of development is the maxi-cycle. The mini-cycle,

in contrast, occurs at each transition of the maxi-cycle. For each transition of the maxi-cycle all of the stages take place, but in a much shorter period of time. For instance, when an individual is transitioning from the exploratory stage to the establishment stage, they will mini-cycle through each of the stages beginning with growth and concluding with the decline stage before continuing on to establishment. Therefore, shifting to the establishment stage of a career requires its own individual cycle of cognitive and affective demands to transition an individual's ability, interests, and commitment to the establishment of a career. Finally, re-cycling takes place after the occurrence of a major life event. A major life event may cause an individual to resume to an earlier stage of development of the maxi-cycle (Leung, p. 121). For example, an individual obtaining a disability while in the maintenance stage may require resuming to the exploratory stage to readjust to their abilities, interests, and overall self-concept. Re-cycling, the maxi-cycle, and the mini-cycle each exhibit Super's theory as malleable to each individual's life experiences.

Super's career theory certainly addresses the complicated experience of an individual's career throughout time. Super emphasizes the developmental aspect of a career while also taking into account the holistic experience of competing roles, environments, personal determinants, and situation determinants. There is a strong developmental as well as a person–environment approach to the theory. Critics have stated that Super's career theory lacks cultural and contextual variables such as the role of socioeconomic status and the cultural economic structure we operate (Krumboltz, 1994). Despite these critiques, Super's theory remains an important historical career development theory that has influenced the way rehabilitation practitioners approach career interventions.

### *Holland's Theory*

Holland's theory has many characteristics of a person–environment theory, while simultaneously having some developmental aspects. The foundation of Holland's theory is the idea that individuals as well as work environments can be characterized by their resemblance to the following six personality types and environmental models: *realistic, investigative, artistic, social, enterprising, and conventional*. Knowing the type of personality and environment model that a person and an environment possess helps predict vocational and educational outcomes. The interaction between the person's personality and the environment is what determines the outcome of their relationship. Furthermore, there are moderators that assist with outcome prediction (Holland, 1997). First, each of the six personality types will be described, followed by a description of the moderators that Holland emphasizes in his theory.

According to Holland, each personality type and environmental model possesses unique characteristics that can be examined within our culture (see Table 6.1). To begin with, *realistic* refers to activities that include practical problems and solutions. A realistic person is often genuine, uninsightful, hardheaded, conforming, and inflexible. Occupations such as an automobile mechanic, farmer, or electrician are within the realistic environmental model. *Investigative* personality type refers to work activities that have to do with ideas, thinking, and gathering information, rather than with physical activity. An investigative person values scientific or scholarly achievements and is more inclined to be analytical, intellectual, pessimistic, and independent. An investigative type likes jobs such as a biologist, geologist, and anthropologist. *Artistic* personality type refers to work activities that deal with the artistic side of things, such as forms, designs, and patterns. An artistic individual is

Table 6.1 *Holland's Personality Types*

| Personality Type | Vocational Preferences | Values | Beliefs | Problem-Solving Style |
|---|---|---|---|---|
| Realistic | Prefers realistic occupations such as an electrician or mechanic | Values ambition, self-control, and practical-minded characteristics | Believes self as having mechanical, technical, and athletic abilities. Enjoys working with hands, tools, and machines | Prefers concrete, practical, and structured solutions |
| Investigative | Prefers investigative occupations such as a biologist or medical technologist | Values scientific or scholarly activities as well as self-determination and personal traits such as being a logical, intellectual, and ambitious person | Believes self as being analytical, curious, and scholarly, and having broad interests | Prefers challenging problems that rely on thinking, gathering information, careful analyses, objective data, and related scholarly practices |
| Artistic | Prefers artistic occupations such as a writer or interior decorator | Values self-expression, equality for all, and personal characteristics such as being imaginative and courageous | Believes self as being expressive, open, original, intuitive, liberal, nonconforming, introspective, and independent | Prefers to use artistic talents and personal traits (e.g., intuition, expressiveness, originality) to solve problems |
| Social | Prefers social occupations such as a teacher or counselor | Values being helpful and forgiving as well as serving others in a medical, institutional or reciprocal way | Believes self as understanding others, having teaching ability, social skills, and lacking mechanical and scientific ability | Prefers to use social competencies and traits (e.g., seeking mutual interactions and help from others) to solve problems |
| Enterprising | Prefers enterprising occupations such as a sales person or a manager | Values controlling others, the opportunity to be free of control, and ambition | Believes self as being aggressive, popular, self-confident, sociable, and possessing leadership and speaking skills | Prefers to use competencies and values (e.g., control of others, traditional beliefs) to dominate the problem-solving process |
| Conventional | Prefers conventional occupations such as a bookkeeper or banker | Values ambition, obedience, politeness, and business and economic achievement | Believes self as being conforming, orderly, and having clerical and numerical ability | Prefers to use rules, practices and procedures (e.g., advice from authority) to solve problems |

From Holland (1997).

often disorderly, emotional, open, and intuitive. Favorable occupations may include a musician, a sculptor, a writer, and an actor/actress. *Social* refers to activities that assist others and promote learning and personal development. A social person prefers to communicate with other people more than they like working with objects, machines, or data. Occupations for a social type might include a counselor, a teacher, and a

speech therapist. *Enterprising* refers to work activities that have to do with starting up and carrying out projects, especially business ventures. An enterprising person persuades and leads people. These people prefer action, rather than thinking, and are often adventurous, excitement-seeking, extroverted, and self-confident. A few examples of jobs an enterprising personality type enjoys are a television producer, a salesperson, and a business executive. *Conventional* refers to work activities that follow set procedures and routines. A conventional person prefers to work with data and detail, rather than with ideas. Conventional jobs include a financial analyst, a tax expert, and a banker (Spokane & Cruze-Guet, 2005; Holland, 1997). Each personality type is explicitly matched to a complementary environment by recognizing the defining characteristics that correspond to one another. This matching system is a classic person–environment approach to an individual's career.

Five important secondary concepts that moderate the personality types and environmental models previously described include consistency, differentiation, identity, congruence, and calculus. *Consistency* refers to the relatedness between the environment models and personality types. For instance, a personality type that is artistic is most likely to have similarities to investigative and social personality types. Furthermore, a person who conforms to the personality type of conventional–enterprising should be easier to predict than social–realistic. The next moderator is *differentiation*. Differentiation refers to the extent to which a person or environment is defined by one as opposed to many types. For instance, a person who displays a stronger investigative–realistic personality type will be more predictive than a person who displays personality characteristics in four different personality types evenly. *Identity* refers to clarity and stability of the person's personality type or the environment's model. Clear goals, interests, tasks, and skills all contribute to identity for the person and the environment. *Congruence* refers to the degree to which personality types need a particular environment. For instance, incongruence occurs when a person with an artistic personality type finds himself or herself in a conventional environment. An artistic person's interests and skills are unlikely to fit with this environment. Finally, *calculus* refers to the hexagonal model that displays the proportional relationship between the different personality types and environmental models. Through this geometrical model, the relationships of the theory are represented visually including the direct and inverse relationships (Holland, 1997) (Figure 6.1).

While Holland's model has so far been portrayed as a person–environment model, there are developmental aspects to the model. Holland explains that personality types develop by means of specific environmental experiences throughout human development. Environments can be perpetuated by parents as well as the choices children have

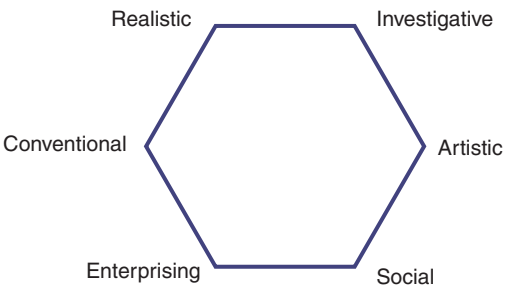


Figure 6.1 *The Holland hexagon.*

within the limits of parental demands. For instance, parents or guardians who are social tend to engage their children in social environmental models. Similarly, preferences an individual identifies with at an earlier age can also influence what behaviors remain consistent at a later age. For instance, preferences in activities, interests, competencies, and values from earlier in life may support a tendency toward certain personality types that develop later in life (Holland, 1997). For instance, a child displaying characteristics of a certain personality type may indeed perpetuate that personality type as time continues and new experiences are achieved. However, new opportunities and experiences may instead lead personality development in a different direction because of the feedback from the experiences (e.g., a previously social child realizing that they dislike speaking in front of groups of people). Clearly, the environmental experiences of an individual play a part in the development of a personality type throughout the life span. This confirms that Holland's theory does possess a developmental approach to career development.

Like other theories, Holland's theory does not exist without opposition. The theory has been criticized for being simplistic and sexist. Nonetheless, these criticisms have been challenged by both theory and evidence supported by research (Holland, 1997; Weinrach & Srebalus, 1990). As a whole, Holland's theory is a tool that can be used by practitioners to better understand the way in which an individual with a disability can achieve work and environmental integration and congruence.

## THEORIES OF WORK ADJUSTMENT

Frank Parsons's 1909 work on career choice is commonly referred to as the first career development theory. In Parsons's theory, he highlights the process of career choice. The career choice process, according to Parsons, is a result of learning about the person, learning about the world of work, and then using what was learned to match a person with their environment. Within the framework of Parsons's writings, career choice was considered a one-time event (Parsons, 1909; Szymanski, Enright, Hershenson, & Ettinger, 2003). This emphasis on career choice has since misguided career professionals to preconceive career development as a process that distinctly begins with the cognitive decision, career choice. Work adjustment theories recognize that career choice is not necessarily a cognitive step that is imperative to experiencing a career or interacting with the work environment. That is to say, most individuals spend more time working rather than choosing a career (Hershenson, 1996). As opposed to the traditional career choice approach Parsons proposed, work adjustment theories focus less on choice and more on the experience of a career or work as it is occurring. The Minnesota Theory of Work Adjustment (MTWA) and Hershenson's model of work adjustment have been described by Salomone (1993) as two important theories of work adjustment because of their utility in assisting individuals to adapt to new environments.

Theories of work adjustment are meaningful to rehabilitation professionals partly because career development for individuals with disabilities typically experience restrictions on career choice because of the disability in and of itself (Conte, 1983; Hershenson, 1996; Osipow, 1976). Therefore, for individuals with disabilities, work adjustment is foreseeably vital. Work adjustment may be more important than the experience of career choice. As the work adjustment theories are described in the next section, it will become apparent how they deviate from the career development theories that have already been described by focusing on career adjustment rather than the occurrence of career choice.

### Minnesota Theory of Work Adjustment

The MTWA takes on a person–environment approach to an individual's career experience (Dawis, 1994; Szymanski, et al., 2003). The theory of work adjustment begins with the assumption that a person has needs that can be met through the work environment. Similarly, the environment also has needs or skill requirements that can be met through a person. For example, these needs could be biological (i.e., needs that are necessary for survival, such as food). Similarly, these needs could be psychological (i.e., needs that are necessary for psychological health, such as self-esteem). To meet an individual's needs, the person can utilize their skills in exchange for work reinforcements. Work reinforcements can come in the form of pay, prestige, or direct satisfaction of a need. According to this theory, the needs and skills of a person are used to describe the person's work personality. The work personality defines how a person behaves while interacting with the work environment to meet their needs. When a person's work performance meets the needs of the work environment, and the needs of the person are fulfilled, job satisfaction or satisfactoriness is achieved (Dawis, 2005).

Job satisfaction or satisfactoriness is important in this theory in order to understand where change will take place. Satisfaction is a state variable, and is characterized as an emotional response to a cognitive assessment of the person–environment fit (Dawis, 2005). Some of the environment's needs can be met by a person in the same way that some of a person's needs can be met by the environment. In this way, the person and environment are complementary. For example, when the reinforcements of the environment meet the values and needs of the person, satisfaction is achieved. *Values* are an important construct to the MTWA. Unlike previous theories, the MTWA focuses on values rather than interests. The MTWA describes values as "reference dimensions underlying needs" (Dawis, 2005, p. 6).

To understand the difference between satisfaction for the person and satisfaction for the environment, the MTWA labels the environment's satisfaction with the person as *satisfactoriness*, and then the person's satisfaction with the environment simply as *satisfaction*. As a result, there are four possible satisfaction circumstances a person can experience with their environment: satisfied and satisfactory, satisfied but unsatisfactory, dissatisfied but satisfactory, or dissatisfied and unsatisfactory (Dawis, 2005). In this theory, satisfaction plays a central motivational role in work adjustment. When the person and the environment fit well, they are experiencing a satisfied and satisfactory state and therefore display maintenance behavior. If there is dissatisfaction, as represented in the last three circumstances, adjustment behavior will take place to establish a higher fit between the person and the work environment (Dawis, 1994). Thus, the satisfaction and satisfactoriness of the person–environment experience in essence help predict the tenure or rather the length a person remains in their job.

The interaction of work adjustment and maintenance can be cyclical in nature. For instance, the person and environment may begin with adjustment and then transition into maintenance. Later, changes that impact the person–environment fit may require the individual to transition back into work adjustment. Both the environment and the person may be completing work adjustment and maintenance behavior at the same time, or one may be in maintenance and the other in adjustment (Dawis, 2005). The work environment and the person do not have to be in the same state of work adjustment.

There are four concepts that help predict the satisfactoriness of the person in the environment and make up the *personality style* of the person as well as the *environment style* (Dawis, 1994; Dawis, 2005). These concepts are *celerity, pace, rhythm,* and *endurance*:

*celerity* is the quickness of interaction or response between the person and the environment; *pace* is the intensity of the interaction; *rhythm* is the pattern of the response (whether it is stable, cyclical, or erratic); and *endurance* is the persistence (length of time) of the interaction (Dawis, 2005). Variation in any of these areas may lead to a satisfactory or unsatisfactory outcome. If there is unsatisfaction or unsatisfactoriness, then adjustment will take place. Adjustment could be in the form of changing specific behaviors or they can take the form of termination of employment within a particular environment in order to seek a more complementary fit.

There are four additional concepts that are useful in understanding the theory of work adjustment (TWA). These concepts explain when adjustment begins and ends. In combination, these four concepts encompass the *adjustment style* of the person–environment interaction (Dawis, 2005). These concepts are flexibility, activeness, reactiveness, and perseverance: *flexibility* is the degree of discorrespondence tolerated before becoming dissatisfied enough to engage in adjustment behavior; *activeness* is acting on the environment to reduce discorrespondence; *reactiveness* is acting on the person to reduce discorrespondence; and *perseverance* refers to the duration of the person's attempts to adjust before quitting. One or all of these may explain when adjustment begins and ends. As time continues, a person's adjustment style may become more stable. If this occurs, these concepts may be described as traits or behavior tendencies. The more evident each of these traits becomes, the more significant they are for practitioners within the field of vocational rehabilitation. Each of these concepts can be imperative to achieving a fit between the person and the work environment.

The TWA has application in many areas of career development and employment. For instance, by using the TWA, educators can focus on the skills and needs of a child or adolescent to assist with guidance of career adjustment. Adults or young adults can similarly climb the career ladder by focusing on skill attainment and becoming cognizant of the skills the work environments need. Within the field of rehabilitation, the TWA can also assist an individual to rationally think through work dissatisfaction and solve problems. By focusing in on what will allow an individual to meet the needs of the work environment, rational decisions are easier to achieve. On the other hand, there are critics of the TWA. Critics of the TWA have stated that job satisfaction or satisfactoriness may rely on a person's perception rather than the reality of the person–environment fit. Others argue that a person's perception is important and cannot be neglected when examining the person–environment fit. In all, understanding the TWA can lead to greater job satisfaction and satisfactoriness as well as overall work integration.

### *Hershenson's Theory of Work Adjustment*

Like other theories, Hershenson's theory has elements of a person–environment theory as well as prominent developmental characteristics. Hershenson's theory has three sequential domains that make up an individual. The first domain developed is the *work personality*, which is composed of the person's self-concept and work motivation. This domain is developed in the preschool years and is mostly influenced by the family. Next, during the school years, the second domain emerges: *work competency*. Work competency is composed of work habits, physical and mental skills, and interpersonal skills in the work setting (Strauser, Ketz, & Keim, 2002; Szymanski & Hershenson, 2005). The last domain develops while an individual transitions from school to work. This final domain is *work goals*. Work goals are the goals an individual has that by this age have become clear and stable. Each of the three domains can only develop to a level that it is supported by its predecessor. In contrast, each domain can influence the domains

that came before it. For instance, an individual's navigation through school may influence their work personality. If an individual fails unexpectedly within a particular curricular area, then his or her self-concept may change (i.e., his or her work personality) and therefore this experience will influence his or her eventual work goals. Similarly, work goals may require adjustment as the life course takes place as well. For example, a person who experiences a significant disability during this time of life may be forced to re-evaluate work goals. This in turn might call into question the appropriateness of existing work competencies and work personality (Szymanski et al., 2003). It is clear that while these three domains emerge sequentially, they can nonetheless be influenced throughout the life course.

The work environment also influences the work adjustment process. Hershenson's theory describes three components of the work environment that mediate work adjustment. The first component is the *behavioral expectations*. This component is made up of the expectations of the work environment (e.g., employers). Examples of behavioral expectations may include timeliness and appropriate communication with customers. The second component is *skill requirements*. Skill requirements include the tasks a particular work environment needs. These skills vary from job to job. For instance, a job in an office setting may require specific computer skills while a job in a factory setting may require specific machine operating skills. Finally, the last component Hershenson describes for the work environment is *rewards and opportunities*. Rewards and opportunities may come in the form of money, benefits, social networking, or power. Impacting the individual and work setting there are formative and intervening influences. The formative influences include an individual's family, school, peer group, and wider culture. Each of these influences impact the formation of a person's work personality, work competencies, and work goals. The intervening influences include the experiences of living, learning, socializing, and culture. All of the intervening influences impact how the individual and work setting fit together (Hershenson, 1981).

According to Hershenson's theory, the product of the interaction between the person and work environment is called *work adjustment* (Hershenson, 1981, 1996; Hershenson & Szymanski, 1992). Work adjustment has three components: task performance, work role behavior, and work satisfaction. *Work role behavior* refers to displaying appropriate behaviors in the work setting, which is primarily related to work personality in the person and the behavioral expectations of the work setting. *Task performance* refers to the quality and quantity of one's work output, which is related primarily to work competencies in the person and the skill requirements of the work setting. *Work satisfaction* refers to one's degree of gratification resulting from work, which is related primarily to the work goals of the person, and the rewards and opportunities in the work setting (Hershenson, 1981).

Hershenson's theory was particularly designed to be applicable to people with disabilities. Theoretically, individuals must address two major environmental transitions in facilitating work adjustment: the transition from home to school and the transition from school to work. However, for individuals who experience an impediment in their career track, there may be a third or fourth environmental transition (e.g., the individual may participate in vocational rehabilitation). Success in the current transition will depend on the individual's experience during previous transitions (Szymanski, Enright, Hershenson, & Ettinger, 2010; Szymanski & Hershenson, 2005). Research has found that individuals with disabilities who had higher levels of work personality have higher levels of job readiness, self-efficacy, and more internalized work locus of control (Strauser et al., 2002).

The Hershenson model of work adjustment contributes a language for understanding the elements of work adjustment for both the employee and the employer. Work

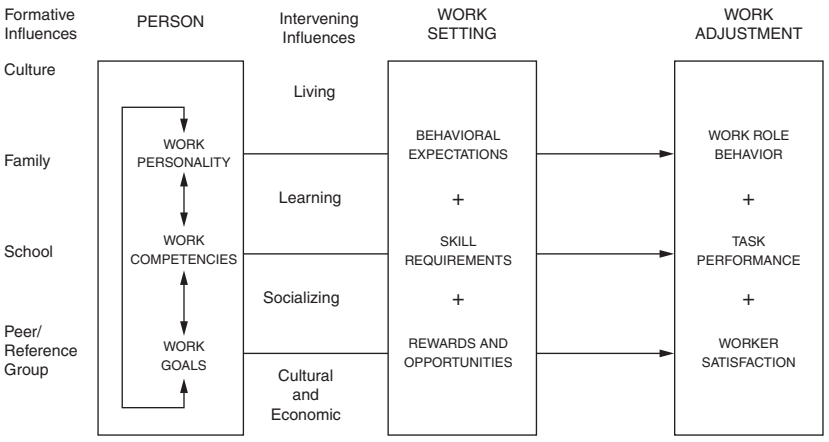


Figure 6.2 *The Hershenson model of work adjustment.*

personality, work competency, and work goals interact with the work environment to form the essential framework of worker satisfaction. Hershenson's model differs from other models in the degree of emphasis he places on the postplacement role that rehabilitation counselor interventions play in work adjustment. Simply finding a job to match a skill set is insufficient. By accurately identifying areas of deficiency and directing interventions directly to those areas, Hershenson theorizes that worker adjustment can be maximized (Figure 6.2).

## DEVELOPMENTAL WORK PERSONALITY

In both theories of work adjustment outlined here that have direct application to people with disabilities, work personality plays a critical role in facilitating work adjustment. Over the years, this concept has been recognized as important, but little research has been directed at empirically validating or operationalizing this important construct. A promising new model, the Developmental Work Personality (DWP), incorporates principles from developmental and social learning theories to explain when, how, where, and with whom critical childhood experiences contribute to adult work personality expression. The model proposes that home and school environments during the grade school years, and the significant role models embedded in these environments, shape the developing work personality. Specifically, the DWP (Strauser, Waldrop, & Ketz, 1999) is an integration of Erikson's (1968) theory of human development, and Bandura's (1977, 1989) theories of observational and social learning. This model incorporates a developmental lens extending from middle childhood into adulthood. This extended view is not typical in the other major theories of work adjustment and career development. As such, this model may provide new pathways for counseling interventions and research modalities. In particular, the DWP shows promising application for individuals who experienced illness or disability onset between the ages of 6 and 13 (Strauser, Wagner, Wong, & O'Sullivan, 2012; Wong, O'Sullivan, & Strauser, 2012). This is when children learn behaviors that later translate into work behavior. Disruption of this developmental stage can result in negative identity pertaining to competence and industry. Counseling interventions can target ways to positively resolve a negative identity, with the intention of improving work personality and vocational outcomes.

The DWP model consists of (1) a *structure* that provides a framework for personality development and issues that need to be resolved during personality development and (2) a *process* that addresses the mechanisms by which an individual's work personality is actually developed. Specifically, the model suggests that during Erikson's fourth stage of development (known as *Industry Versus Inferiority*), children focus on task completion and mastery of ideas and behaviors. The mechanism and process for this stage include observation of role models, rehearsal of new behaviors, and integration of feedback from role models, which provide the foundation for the *developing work personality*. Observations of role model behavior might include work task completion, organization of daily tasks, and a wide range of social interactions. Children are also learning new behaviors, both task-oriented ones (i.e., school tasks and chores) and socially oriented ones (i.e., respecting authority figures and getting along with peers). The observations of role model behavior, learning new behaviors, and the interpretation and integration of role model feedback about behaviors and tasks are believed to contribute to the developing child's identity. Work task completion and positive social interactions are the foundation of successful vocational outcomes. Erikson's fourth stage of development provides ample opportunity for children to begin to integrate a view of the self that is either competent and industrious, or not, depending on (a) the opportunities to learn new tasks presented during this stage, (b) the child's physical, emotional, and mental capacities to do so, (c) the caretaker's and role model's presence and capabilities during this stage of development, as well as (d) the quality and consistency of that feedback.

Erikson's fourth stage presents the child with new tasks at home and at school, including homework and school performance, but also schoolyard tasks such as getting along with peers, teamwork both in the classroom and on the playground, and following directives from parents and teachers. Parents are likely to designate more responsibility of chores during this stage and require the majority of homework to be completed independently. Further, children during this stage are impacted by the demands of the time-limited nature of the world. Homework assignments have a due date, children must be at school at a certain time, and learn to work independently for specific purposes for designated time periods. Some children at this stage may also be involved in extracurricular activities such as sports, music, art lessons, and so on. All these activities present new challenges and require more independence than previous stages of development. According to Erikson (1963), the development of these attitudes and behaviors must begin at this early stage because they are complex and require years of development if the person is to be prepared to become a productive member of the society. From this perspective, Erikson is not suggesting that work behavior and attitudes are formed and crystallized during this stage, but rather they begin to develop and take a specific trajectory, either in an Industrious path or in an Inferior path (to use Erikson's term). Resolution toward a more positive identity, and thus stronger work personality expression, can be achieved at any stage with appropriate counseling interventions.

Through the process of observational learning (Bandura, 1986), individuals who observe relevant role models engaging in effective behaviors and tasks are likely to develop and incorporate those behaviors and tasks into their range of behavior. Conversely, if individuals observe relevant role models engaging in ineffective behaviors and tasks, they are at increased risk to develop and incorporate those same ineffective tasks and behaviors into their repertoire of behaviors. Children learn behaviors from older peers and adults by vicariously observing their behaviors. Children in the fourth stage are presented with many potential role models, but according to Bandura (1977), only the role models who are viewed as salient will be

observed in such a way as to incorporate their observations into their own behaviors. Parents and caretakers, teachers, coaches, older siblings, and older peers are all potential salient role models to children during this developmental stage. According to developmental theorists (Cassidy & Shaver, 1999), parents are the most influential in children's development.

Bandura (1986) explains that children learn best when the observed tasks and social interactions are rehearsed. For children in the middle childhood stage of development, rehearsal of tasks and social interactions transpires through play, schoolwork, chore completion, and extracurricular activities. Bandura's theory does not require immediate external rewards for learning. Internal rewards, such as a feeling of being connected to the role model, are often sufficient. Humans are more likely to perform certain observed behaviors, even stringent and difficult ones, if they also observe these models being praised for the stringent behaviors by important others (Bandura, 1986). For example, a child who frequently observes an older sibling or peer being praised by a parent for a behavior not yet in the child's repertoire (such as homework, or chores beyond the child's current development) will likely retain and rehearse similar behavior in the future. According to Bandura, the child is capable of learning behaviors simply through the process of observation without ever having practiced the behavior (Miller, 1983).

Combining elements from Erikson and Bandura, the developing work personality becomes clear. A child from the ages 6 to 13 is presented with new challenges in life, including school work, playground endeavors, interactions with peers, chores at home, awareness of time constraints, and the ongoing observations of authority figures doing work, going to work, delegating work, and interacting with each other and outsiders. A child at this stage who has positive role models at home, school, and other relevant environments will have a better chance of resolving the conflicts presented at this stage and will learn to value task completion and getting along with others, both of which are deemed critical for successful employment. A scale has been developed to assess the components of the DWP (Wong et al., 2012), and promising but limited research has been done using the scale (Strauser et al., 2012) but much more work using the model's and scale's utility is needed. An empirically supported working model of the DWP and its likely impact on vocational and career outcomes is presented below (O'Sullivan & Strauser, 2010; Strauser et al., 2002; Wong et al., 2012) (Figure 6.3).

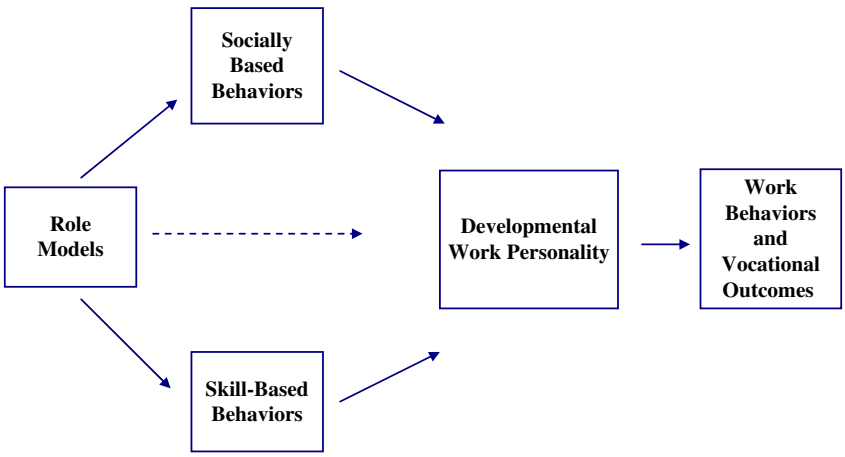


Figure 6.3 *The Developmental Work Personality model.*

## CONCLUSION

Career development and work adjustment theories continue to evolve as researchers and practitioners explore what influences work integration and adjustment. These descriptions of career and work adjustment theories bring to light the complexity of career development and adjustment. Each provides a framework that is relevant to practicing rehabilitation professionals. Super and Holland's career development theories provide the foundation to later career adjustment theories that encompass the MTWA and Hershenson's Theory of Work Adjustment. The DWP model also provides an important synthesis to both the theories of career development and career adjustment. Each of these theories is important because of their influence in supporting the overall independence of individuals with disabilities. These theories focus on work adjustment from the perspectives of the person–environment interaction as well as the developmental aspect of work integration. Progress has been made in further understanding the applicability of these theories; however, work integration and adjustment continues to be a concern for individuals with a disability. Much more research is needed in the field of work and disability. The underemployment of individuals with disability demonstrates that disparity continues despite years of work that rehabilitation counselors have contributed to minimizing the work disparities. These career theories have been available for years and must continue to be expanded upon in research and practice to support innovation and to decrease employment disparities that individuals with disabilities experience.

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# *Chapter 7: The Career Development of People With Disabilities: A Social Cognitive Perspective*

*ROBERT W. LENT, M. ASHLEY MORRISON, AND IJEOMA EZEOFOR*

***After reading this chapter, you should be able to:***

1. Understand the basic elements of the social cognitive career theory (SCCT) interest and choice models (e.g., self-efficacy, outcome expectations, personal goals, environmental supports, and barriers).
2. Appreciate how these elements may generally shape career-related behavior.
3. Know how research on SCCT has been applied specifically to people with disabilities.
4. Think critically about the strengths and limitations of SCCT in explaining the career-related interests and choices of people with disabilities.

Social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994, 2000) is designed to promote an integrative understanding of career behavior. In particular, the theory seeks to bring together, and consider the interrelations among, key variables that have been highlighted by prior career theories and research. SCCT originally contained three overlapping models aimed at explaining the processes through which people (a) develop vocational interests, (b) make and revise occupational choices, and (c) achieve varying levels of career success and stability (Lent et al., 1994). Two additional models, one focused on work satisfaction and adjustment (Lent & Brown, 2006, 2008) and the other on career self-management processes (Lent & Brown, in press), have subsequently been developed.

The primary foundation for SCCT lies in Albert Bandura's (1986) general social cognitive theory, which emphasizes the complex ways in which people, their behavior, and environments mutually influence one another. Consistent with Bandura's theory, SCCT highlights people's capacity to direct their own vocational behavior—yet it also

acknowledges the many personal and environmental influences that can strengthen or weaken personal agency in the career development process. Although SCCT is a generic theory of work and career behavior, we believe it has relevance for efforts to understand and assist the career development of people with disabilities. In fact, much of the impetus for the theory's development involved a desire to better explain the ways in which people's career lives can be affected by their race, gender, disability status, and other personal qualities.

In this chapter, we briefly describe SCCT's interest and choice models and review research that has applied the theory, or certain of its constructs, to the career behavior of people with disabilities. We focus on the interest and choice models both because of space limitations and because these two models, which are interwoven, have so far drawn the most attention in SCCT-related research on the career development of people with disabilities. More thorough presentations of SCCT's various models, its research base, and applications to diverse populations can be found in other sources (e.g., Fabian, 2000; Lent, 2013).

## SCCT'S BASIC ELEMENTS AND MODELS

### *Central Person Variables*

SCCT highlights the interplay between three "cognitive person variables" that are seen as playing key roles in career development: *self-efficacy beliefs*, *outcome expectations*, and *personal goals*. Self-efficacy beliefs refer to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391). Self-efficacy is not viewed as a global trait like self-esteem (i.e., general feelings of self-worth). Rather, self-efficacy is conceived as a dynamic set of self-beliefs that are linked to particular performance domains and activities. An individual might, for instance, hold high self-efficacy beliefs regarding one's artistic abilities, but feel much less competent at social or mechanical tasks.

These beliefs about personal capabilities may be acquired and modified via four primary types of learning experience: (a) personal performance accomplishments, (b) vicarious learning (or modeling), (c) social persuasion, and (d) physiological and affective states (Bandura, 1997). In general, personal accomplishments may exert the greatest influence on self-efficacy. Compelling success experiences within a given performance domain (e.g., math) tend to raise self-efficacy in that domain, while convincing or repeated failures tend to lower domain self-efficacy.

Outcome expectations refer to beliefs about the consequences or outcomes of performing particular behaviors. Whereas self-efficacy beliefs are concerned with one's capabilities (e.g., "can I do this?"), outcome expectations involve imagined consequences of particular courses of action (e.g., "if I try doing this, what will happen?"). Bandura (1986) maintained that self-efficacy and outcome expectations both help to determine a number of important aspects of human behavior, such as the activities that people choose to pursue and the ones they avoid. People develop outcome expectations regarding different academic and career paths from a variety of direct and vicarious learning experiences, such as perceptions of the outcomes they have personally received in relevant past endeavors (e.g., school and part-time work) and the information they acquire from others about different career fields.

Personal goals may be defined as one's intention to engage in a particular activity or to produce a particular outcome (Bandura, 1986). SCCT distinguishes between *choice-content goals* (the type of activity or career one wishes to pursue) and *performance goals*

(the level or quality of performance one plans to achieve within a chosen endeavor). By setting goals, people help to organize, direct, and sustain their own behavior, even over long intervals without external payoffs.

## SCCT's Interest and Choice Models

In SCCT, the development of academic and career interests, and the formation of educational and vocational choices, are captured within conceptually distinct yet interlocking models (Lent et al., 1994). In each model, self-efficacy, outcome expectations, and goals are seen as operating in concert with other important aspects of persons (e.g., gender and race/ethnicity), their contexts, and learning experiences to help shape academic and career development.

### Interest Model

Home, educational, and recreational environments ordinarily expose children and adolescents to an array of activities, such as sports, math, and writing. Young people are selectively encouraged by parents, teachers, peers, and important others to pursue, and to try to perform well, certain activities from among those that are available to them. By practicing different activities—and by receiving ongoing feedback about the quality of their performances—children and adolescents gradually refine their skills, develop personal performance standards, and form self-efficacy and outcome expectations regarding different tasks and domains of behavior.

According to SCCT's interest model, shown in Figure 7.1, self-efficacy and outcome expectations regarding particular activities help to mold career interests (i.e., each person's particular pattern of likes, dislikes, and indifferences in relation to career-relevant tasks). Interest in an activity is likely to blossom and endure when people (a) view themselves as competent (self-efficacious) at the activity and (b) anticipate that performing it will produce valued outcomes (positive outcome expectations). At the same time, people are likely to develop disinterest or even aversion toward activities at which they doubt their efficacy and expect to receive undesirable outcomes.

As interests emerge, they—along with self-efficacy and outcome expectations—promote intentions, or goals, for sustaining or increasing one's involvement in particular activities. Goals, in turn, increase the likelihood of activity practice, and subsequent

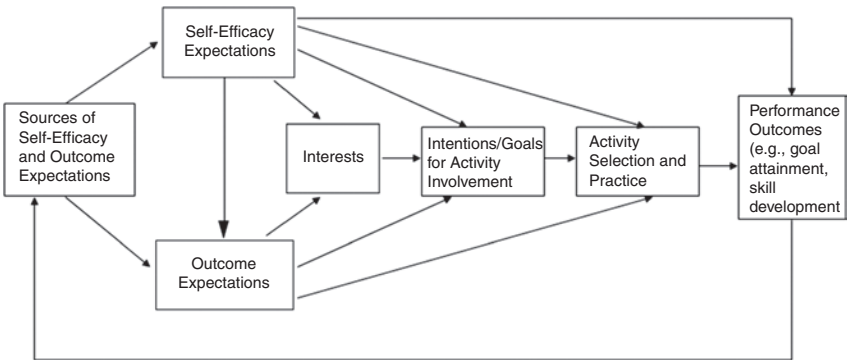


Figure 7.1 *Model of how basic career interests develop over time.*
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practice efforts give rise to a particular pattern of performance attainments which, for better or worse, help to revise self-efficacy and outcome expectations within an ongoing feedback loop. This basic process is seen as repeating itself continuously prior to (as well as after) work entry.

Although career-related interests tend to stabilize over time (and, for many people, interests can be quite stable by late adolescence or early adulthood), in the view of SCCT, adults' interests are not necessarily set in stone. Whether interests solidify or change is determined by such factors as whether initially preferred activities become restricted and whether people are exposed (or expose themselves) to compelling learning experiences (e.g., through childrearing, volunteering, managing others, or technological innovations) that enable them to expand their sense of efficacy and positive outcome expectations into new activity spheres. Thus, SCCT assumes that, when they occur, shifts in interests are largely due to changing self-efficacy beliefs and outcome expectations.

SCCT also takes into account other aspects of people and their environments that affect the acquisition and modification of interests. For example, abilities and values—staples of trait-factor theories—are also important in SCCT, but their effects on interest are seen as largely mediated by, or operating through, self-efficacy and outcome expectations. That is, rather than determining interests directly, objective ability (as reflected by, e.g., test scores or past successes or failures) serves to raise or lower self-efficacy beliefs which, in turn, influence interests (Lent et al., 1994). In other words, self-efficacy functions as an intervening link between ability and interests. Career-related values are built into SCCT's concept of outcome expectations. These expectations may be thought of as a combination of people's preferences for particular work conditions or reinforcers (e.g., status, money, and autonomy), together with their beliefs about the extent to which particular occupations offer these payoffs.

Self-efficacy and outcome expectations do not arise in a social vacuum; rather, they are forged and function in the context of other important qualities of persons and their environments, such as gender, race/ethnicity, genetic endowment, health or disability status, and socioeconomic conditions, all of which can play important roles within the career development process. Figure 7.2 offers an overview of how, from the perspective of SCCT, selected person, environmental, and learning or experiential variables contribute to interests and other career outcomes.

In brief, SCCT emphasizes the psychological and social aspects of variables like gender, ethnicity, and disability status. Such "sociodemographic" variables are seen as linked to career development in several key ways—in particular, through the types

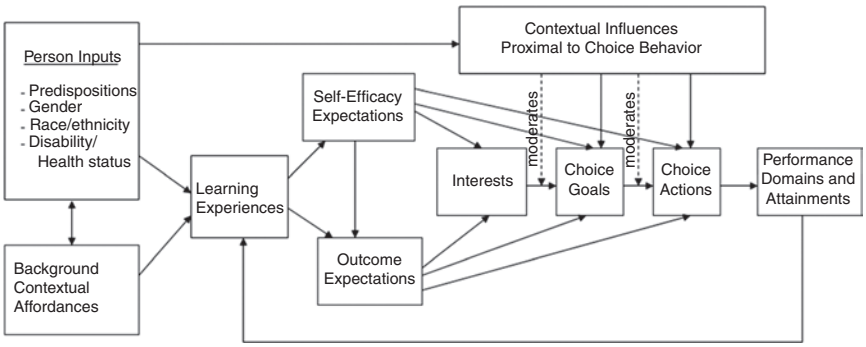


**Figure 7.2** ***Model of personal, contextual, and experiential factors affecting career-related choice behavior.***
*Note:* Direct relations between variables are indicated with solid lines; moderator effects (where a given variable strengthens or weakens the relations between two other variables) are shown with dashed lines. Copyright 1993 by Lent, Brown, & Hackett. Reprinted with permission.

of reactions they evoke from the social/cultural environment and from their relation to the opportunity structure to which individuals are exposed (e.g., the access offered to career-relevant models and performance experiences). Such a view encourages consideration of how these variables influence the contexts in which self-efficacy and outcome expectations are acquired. For instance, gender role socialization processes tend to bias the access that boys and girls receive to experiences necessary for developing strong efficacy beliefs and positive expectations regarding male-typed (e.g., science) and female-typed (e.g., helping) activities. As a result, boys and girls are more likely to develop skills (along with beneficial self-efficacy and outcome expectations) and, in turn, interests in tasks that are culturally defined as gender-appropriate (Hackett & Betz, 1981).

Similarly, based on the nature of their disabilities (e.g., intellectual, mobility, or communication) and the ways in which the educational environment responds to them, children with disabilities are likely to receive differential exposure to learning experiences and performance feedback that favor the formation of certain vocational interests and render less likely the development of others. For example, children with language processing difficulties will, through their own experiences with reading and writing and through their self-comparisons with their peers, typically come to see themselves as less efficacious at reading and writing tasks. They may also be expected to receive less positive outcomes resulting from engaging in such tasks (e.g., parental frustration, peer teasing, and embarrassment). Over time, these lowered self-efficacy and outcome expectations are likely to limit students' enjoyment of (or interests at) activities that involve reading and writing.

### Choice Model

SCCT divides the initial choice process into several parts, in particular: (a) the expression of a primary choice (or goal) to enter a particular field; (b) taking actions designed to implement one's goal (e.g., enrolling in a particular training program or college major); and (c) subsequent performance experiences (e.g., exemplary attainments) that form a feedback loop, affecting the shape of one's future choice options. It must be emphasized that people do not choose careers unilaterally; environments also choose people. Thus, career choice is a two-way street that is conditioned, in part, by the environment's receptivity to the individual and judgments about the individual's ability to meet training and occupational requirements. Moreover, occupational choice is a dynamic process, rather than a one-time event. Initial choices are subject to future change because individuals and their environments cannot be expected to remain static over time.

Similar to Holland's (1997) theory, SCCT assumes that people's vocational interests tend to orient them toward choice options that might enable them to perform preferred activities and to interact with others who have similar work personalities. For example, a person whose primary interests lie in the social domain is likely to gravitate toward socially oriented occupations, enabling him or her to work with others in a helping or teaching capacity. However, this process is not always so simple or problem-free: environments may not be supportive of individuals' choices and people are not always free to pursue their primary interests. Choice may be constrained, for example, by family pressures, economic realities (e.g., the need to bring in immediate income and lack of funding for training), and the quality of one's prior education. In such instances, personal interests may not be the "prime mover" behind an individual's career choice. It is, therefore, important to take into account additional variables that influence the choice process.

SCCT's choice model, shown in Figure 7.2, is embedded within a larger conceptual scheme that acknowledges the precursors and consequences of choices. As described earlier, self-efficacy and outcome beliefs are seen as jointly influencing career-related interests, which tend to foster choice *goals* (i.e., intentions to pursue particular work options) that are congruent with one's interests. Goals, then, motivate choice *actions*, or efforts to implement one's goals (e.g., seeking relevant training and applying for certain jobs). These actions are, in turn, followed by a particular pattern of performance successes and failures. For instance, after gaining entry into an engineering college, a student may have difficulty completing the required math and physics courses. The student may also discover that the work environment and rewards available in engineering suit oneself less well than had been initially anticipated. These learning experiences may prompt the student to revise one's self-efficacy beliefs and outcome expectations, leading to a shift in interests and goals (e.g., selection of a new academic or career path).

It is important to point out that self-efficacy and outcome expectations can affect people's choice goals and actions, above and beyond the influence of interests (note the separate paths from self-efficacy and outcome expectations to goals and actions in Figure 7.2). These additional theoretical paths are intended to help explain occupational choice in many real-world instances where people are not simply free to pursue their primary interests. As Bandura once observed (personal communication, March 1, 1993), people are not necessarily drawn to work on assembly lines or in coal mines by a consuming interest in the work. When people perceive the need to make occupational choices that compromise their interests or for reasons other than interests—for instance, because of environmental barriers or limited opportunities—they may choose less interesting options based on what work is available to them, in concert with their self-efficacy (e.g., do I have, or can I develop, the skills to do this work?) and outcome expectations (e.g., are the payoffs worth it for me to take this job?).

There are additional ways in which people's environments affect the choice process. For instance, each person derives certain "affordances" from the environment—for instance, social and material resources or hardships—that help to shape one's career development (Vondracek, Lerner, & Schulenberg, 1986). In SCCT, these contextual affordances are divided into two general types, based on when they occur within the choice process. The first type includes more distal, background influences (e.g., cultural and gender role socialization, types of available career role models, and skill development opportunities) that help to shape self-efficacy, outcome expectations, and hence, interests. The second type involves environmental influences that come into play during the active phases of choice making. Examples include emotional or financial support for pursuing a particular option, job availability in one's preferred field, and sociostructural barriers, such as discrimination. Figure 7.2 includes consideration of these distal (lower left) and proximal (upper right) contextual affordances.

In presenting SCCT's interest model, we had considered the more distal effects of contextual variables on the acquisition of self-efficacy and outcome expectations. The choice model acknowledges that contextual factors can also affect people in several ways during the process of setting and implementing their career choice goals. First, certain conditions may *directly* affect people's goals or actions. In certain cultures, for example, one may defer one's career decisions to significant others in the family. (Such direct influences are represented by the solid arrows from contextual variables to goals and actions in Figure 7.2.) Second, contextual variables may affect people's ability or willingness to translate their interests into goals and their goals into actions. For instance, career interests are more likely to blossom into goals (and goals are more likely to be implemented) when people experience strong environmental supports and

weak barriers in relation to their preferred career paths. By contrast, nonsupportive or hostile conditions can impede the process of transforming interests into goals and goals into actions. In statistical terms, this implies that contextual supports and barriers can *moderate* the goal transformation process (shown by the dotted paths in Figure 7.2). That is, the relations of interest to goals, and of goals to actions, are expected to be stronger in the presence of favorable versus restrictive environmental conditions.

In presenting the interest model, we noted how the presence of particular disabilities in childhood and adolescence can bias the learning process through which career-relevant interests develop. To the extent that interests tend to stabilize by late adolescence, one's perceived range of career options may become substantially constrained by interest limitations. For example, a history of frustrating experiences with reading is likely to become internalized in the form of low self-efficacy and unfavorable outcome expectations—and ultimately, relatively low expressed interests—for activities that require reading. Such interests (or aversions) will likely rule out consideration of reading-intensive career possibilities. Moreover, environmental gatekeepers are prone to bar entry to those who have not demonstrated the requisite competencies at particular career paths, regardless of the reasons.

Individuals who acquire certain disabilities in adulthood, after career entry, may also face both internal and external challenges to their choice behavior. For example, the effects of a stroke may diminish one's ability to perform work activities that are consistent with one's primary interests and current job. One's employer may be sympathetic but perceive that the individual is no longer able to meet one's job duties, even with reasonable accommodations. As a result, the worker may seek to explore alternative career options that, to the extent possible, draw on secondary interests and for which the worker possesses (or can develop) adequate levels of skill, self-efficacy, outcome expectations, and support. There are also many instances in which people's potential to pursue their vocational interests is compromised by financial needs or other considerations (e.g., lack of access to preferred work options).

## APPLYING SCCT TO PEOPLE WITH DISABILITIES: A REVIEW

Several writers have seen SCCT, or particular social cognitive concepts, as having utility in understanding the career development of people with various types of disability (e.g., Fabian & Pebdani, 2013; Gioia, 2005; Rojewski, 2002; Szymanski, Enright, Hershenson, & Ettinger, 2010). For example, Rojewski (2002) suggested that the constructs of SCCT should be considered when assessing and planning career interventions for adolescents with mild disabilities. Szymanski, Enright, Hershenson, and Ettinger (2010) described SCCT as "particularly applicable to people with disabilities" (p. 105) and as having the potential to inform interventions aimed at "overcoming barriers and enhancing efficacy" (p. 106). Ochs and Roessler (2004) concluded that "[SCCT] might provide theoretical guidelines for developing career assessment batteries and interventions for young people with learning disabilities" (p. 229). Fabian (2000) considered how SCCT could be employed as a conceptual framework for understanding and assisting the vocational behavior of persons with serious mental health disorders.

In this section, we focus on published empirical studies that have examined social cognitive variables in the context of disability. Our review is necessarily brief, given space constraints and the fact that this literature is as yet quite modest in size. While not all of the studies we located were explicitly derived from SCCT, the theory can be used as a way to organize this literature and identify its gaps and implications for future research. We will classify studies under the headings of the social cognitive variables

that have received the most scrutiny by career/disability researchers: self-efficacy, outcome expectations, and environmental supports and barriers.

### Self-Efficacy

Of the various elements of SCCT, self-efficacy has received the most attention in the disability literature. Although relatively small in size, this area of inquiry has been notable for its variety. In particular, self-efficacy has been examined in several different types of disability, including learning disabilities (Ochs & Roessler, 2004; Panagos & DuBois, 1999), psychiatric disabilities (Regenold, Sherman, & Fenzel, 1999; Suzuki, Amagai, Shibata, & Tsai, 2011; Waghorn, Chant, & King, 2005, 2007), physical disabilities (Barlow, Wright, & Cullen, 2002), and intellectual disabilities (Nota, Ginevra, & Carrieri, 2010). Self-efficacy has also been studied in persons with disabilities both within and outside the United States (e.g., the United Kingdom, Barlow et al., 2002; Australia, Waghorn et al., 2005, 2007; Japan, Suzuki et al., 2011; Italy, Nota et al., 2010). Finally, self-efficacy has been examined in different developmental contexts, such as high school (Ochs & Roessler, 2001, 2004; Panagos & DuBois, 1999), college (Conyers & Szymanski, 1998; Luzzo, Hitchings, Retish, & Shoemaker, 1999), and the workplace (Barlow et al., 2002; Regenold et al., 1999; Waghorn et al., 2005, 2007).

In addition to the varied types of disability and the ages and nationalities of samples studied, researchers have examined different aspects of self-efficacy and a range of dependent variables. Given the ongoing concern about the employment rates of persons with disabilities, it is not surprising that several studies have examined self-efficacy in relation to employment outcomes. Studying a sample of individuals with psychiatric disabilities, Regenold et al. (1999) found that self-efficacy regarding the ability to perform job search tasks predicted whether or not individuals had later attained their employment goals. Waghorn et al. (2005, 2007), also studying individuals with psychiatric disabilities, found that self-efficacy with respect to work skills was related to indices of both prior and current employment. Examining individuals with different types of disability, O'Sullivan, Strauser, and Wong (2012) also found that self-efficacy regarding work skills was related to individuals' length of previous employment.

Several studies have examined self-efficacy in relation to the outcome expectations or vocational interests of persons with disabilities. Replicating findings with nondisabled students, Nota et al. (2010) found that self-efficacy beliefs were predictive of interests across Holland's (1997) six RIASEC (realistic, investigative, artistic, social, enterprising, and conventional) themes in a sample of young adults with intellectual disabilities. Panagos and DuBois (1999) also found that career self-efficacy beliefs were related to corresponding measures of interests as well as outcome expectations among high school students with learning disabilities. In a study of high school students with learning disabilities, Ochs and Roessler (2004) found that students' self-efficacy at performing career decision-making tasks was related both to their outcome expectations and intentions to engage in behaviors associated with career decision making.

A few studies have compared the self-efficacy ratings of individuals with and without disabilities, finding that individuals with disabilities tend to have lower levels of career decision-making self-efficacy than their nondisabled peers (Luzzo et al., 1999; Ochs & Roessler, 2001). Such a pattern is consistent with the assumption that persons with disabilities may receive differential exposure to Bandura's (1997) four sources of efficacy information or that they may be more likely to encounter barriers (and less likely to receive supports) for their career development.

If self-efficacy is assumed to play important roles in enabling various facets of career development, such as developing interests, making work-related choices, or obtaining and maintaining employment, then it would seem to be important to promote positive but realistic levels of self-efficacy in persons with disabilities. However, this issue has received little research attention to this point. In one relevant study, Conyers and Szymanski (1998) created a 10-hour intervention that included interest and values assessment exercises, introduction to career resources, information on legislation related to persons with disabilities, and training in goal setting, problem solving, self-management skills, and decision making. They found the intervention to enhance the career decision-making self-efficacy of college students both with and without disabilities.

### *Outcome Expectations*

A few studies have examined the career-related outcome expectations of persons with disabilities, typically in combination with self-efficacy beliefs. Panagos and DuBois (1999) found that outcome expectations (in particular, beliefs about the extent to which particular career paths could offer a sense of accomplishment, security, and prestige) were significantly related to the career interests of adolescents with learning disabilities. However, outcome expectations did not account for unique variance in interests above and beyond self-efficacy.

Ochs and Roessler (2001) reported that, compared to high school students without disabilities, those with disabilities held significantly lower outcome expectations regarding career decision making. However, despite these differences in mean level of outcome expectations, Ochs and Roessler (2004) later reported that career decision-making outcome expectations and self-efficacy each explained unique variance in the career exploratory intentions of high school students both with and without learning disabilities.

### *Environmental Supports and Barriers*

SCCT implies that environmental factors can have a major influence on the career trajectories of persons with disabilities, affecting the learning process through which self-efficacy, outcome expectations, and skills are formed, the choice options that are made available and encouraged (or discouraged), and the career advancement opportunities that are manifest. The ways in which the environment responds to persons with disabilities can be partly understood in terms of the concepts of barriers and supports, that is, the presence of career-related hurdles and resources that can either impede or promote career development. Supports and barriers represent a relatively new thrust of social cognitive research in the disability literature.

In a study of persons with different forms of disability, Fabian, Ethridge, and Beveridge (2009) found that participants perceived a variety of barriers to their career involvement, such as having limited access to job contacts and career information. These barriers were related to gender and work status, with men and those with jobs reporting lower barriers. Fabian et al. also identified the presence of psychosocial supports (e.g., social connections with friends and family) that correlated negatively with barrier perceptions and, theoretically, may have the potential to counteract the effects of barriers. The authors also noted that a number of salient career barriers are often the focus of vocational rehabilitation and counseling services.

A few other studies have employed qualitative, interview, or mixed methods approaches to examining the role of barriers or supports in the career development of persons with disabilities (e.g., Hutchinson, Versnel, Chin, & Munby, 2008; Lindstrom, Doren, & Miesch, 2011). In one such study, Punch, Creed, and Hyde (2006) examined the barriers perceived by high school students with hearing impairments. Salient barriers included worries about social/communication difficulties (e.g., other persons' lack of understanding of hearing loss) in the job setting. The authors also noted that most of their interviewees had little knowledge of coping strategies or workplace accommodations that might be used to address such barriers.

Studying persons with physical disabilities who were, or had been, in senior management positions, Wilson-Kovacs, Ryan, Haslam, and Rabinovich (2008) found that participants cited such barriers as limited opportunities for advancement, a lack of organizational awareness about the needs of individuals with disabilities, and inadequate provision of organizational and work team supports. Along with the barriers cited by Punch et al.'s (2006) participants, these findings suggest the need for multipronged interventions aimed at work environments (e.g., supervisors, mentors, and organizational policies) as well as at individual students and workers with disabilities.

## SUMMARY AND IMPLICATIONS

The findings of a number of studies suggest that self-efficacy beliefs are related to the interests, goals, and employment experiences (e.g., job finding and work stability) of persons with a variety of disabilities, both in the United States and abroad. Relatively few studies have examined other social cognitive variables, though there has been some support for the predictive utility of outcome expectations in relation to interests and goals. In some studies, persons with disabilities report lower self-efficacy or outcome expectations than do persons without disabilities, suggesting that such perceptions reflect the differential learning experiences or environmental hurdles that persons with disabilities encounter. In addition, a few studies underscore the variety of barriers that individuals with disabilities face as students beginning to form their vocational identities, as young adults, and as more advanced workers. To this point, however, there has been less attention, in the literature on SCCT and disability, to supportive environmental conditions and coping strategies (at either individual or organizational levels) that may help to offset barriers to career choice and advancement.

Collectively, the findings on the application of SCCT to the career development of persons with disabilities show promise, yet this research is clearly in its early stages. Especially needed are studies that test fuller versions of SCCT's interest and choice models, rather than examining only individual social cognitive variables, such as self-efficacy. In addition, it would be useful to examine the utility of the relatively new SCCT model of satisfaction/well-being in relation to the school and work adjustment of persons with disabilities. Longitudinal studies are also needed that track the relations among SCCT variables and outcomes over time. Finally, it would be useful to design and test more SCCT-based interventions for facilitating the career outcomes of students and adults with disabilities. The current findings point to the potential value of intervention elements aimed at bolstering self-efficacy and outcome expectations, surmounting environmental barriers, and marshalling environmental supports and resources. Additional directions for future research and practice can be drawn from the larger literature on SCCT, including its applications to other forms of diversity (e.g., see Brown & Lent, 1996; Fabian, 2000; Hackett & Byars, 1996; Lent, 2013).

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# *Chapter 8: Cognitive Information Processing Theory*

*DEBRA S. OSBORN, DENISE E. SAUNDERS, AND CARRIE WILDE*

***After reading this chapter, you should be able to:***

1. Review key elements and research supporting cognitive information processing (CIP) theory.
2. Present the career thoughts inventory (CTI) and provide a case example.
3. Summarize research on dysfunctional career thinking and the CTI.
4. Discuss relevant research on CIP and CTI as applied to people with disabilities.
5. Provide a case example.

## THEORETICAL BACKGROUND

Cognitive information processing (CIP) theory (Sampson, Reardon, Peterson, & Lenz, 2004) applies cognitive psychology and information processing strategies to making career decisions. Key assumptions of the CIP theory toward decision making and solving career problems are that this process (a) involves emotions and cognition, (b) involves content and process knowledge, (c) requires organizational skills to effectively sort through information, and (d) is a skill that can be acquired.

CIP theory comprises three main elements: the pyramid of information processing, the CASVE cycle, and the readiness model. The theory was designed to be used with clients in career counseling, and thus each of these elements has a visual representation, with the first two also having a counselor and client version.

To represent the key elements involved in making a career decision, the *pyramid of information processing*, consisting of three domains, was designed (see Figure 8.1). The foundational level consists of two domains, *self-knowledge* and *knowledge* about options. Having some basic knowledge about oneself and the options available is a requisite for making effective career decisions. *Self-knowledge* can contain information about

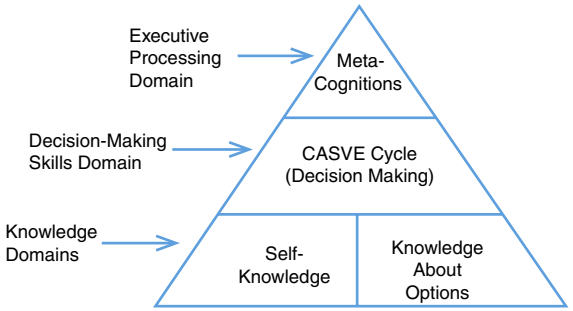


**Figure 8.1** ***Pyramid of information processing domains.***
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interests, skills, values, culture, spirituality, personality, and experiences. *Knowledge about options* includes information about specific options such as work tasks, education/training required, salary, hiring trends, advancement opportunities, and related occupations. This domain also involves understanding how an individual sees and organizes the world of work. For example, are jobs seen as white collar/blue collar, female/male, organized around certain elements such as Holland types (Holland, 1997), or data, people, interests, or things?

The second domain addresses decision-making skills and is conceptualized as a five-step cycle known as CASVE (pronounced cuh-sah-vee). The steps include:

- **Communication** (knowing I need to make a choice, understanding the gap between where I am and where I want to be, as well as internal and external cues that I need to make a decision)
- **Analysis** (understanding myself and my options)
- **Synthesis** (elaboration and crystallization, or expanding, followed by narrowing my options to three to five considerations)
- **Valuing** (prioritizing my options and making a preliminary choice)
- **Execution** (trying out my first choice)

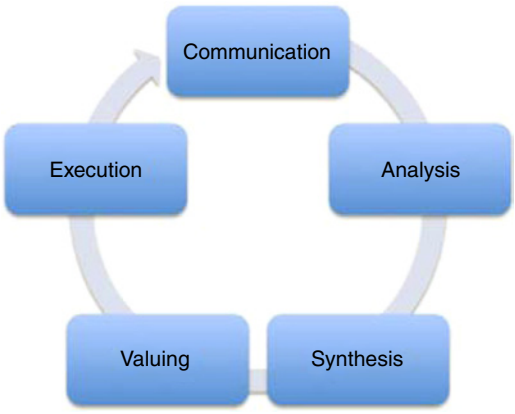


**Figure 8.2** ***CASVE cycle.***
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Once execution has been accomplished, the client is directed back to the Communication step in which they revisit the original gap and determine if the gap has been closed or if they need to revisit other steps in the CASVE cycle (see Figure 8.2). Another resource that has been created to help an individual understand the factors impacting the decision is the Decision Space Worksheet (Peterson, Leasure, Carr, & Lenz, 2009–2010), in which an individual writes down the factors and then illustrates the relative impact of each of these on the decision (see Figure 8.3). The counselor can discuss the barriers that the individual is perceiving and together can determine how best to proceed.

The third domain is the Executive Processing Domain with a focus on how a person thinks about a career decision. Tasks associated with this domain include identifying negative self-talk, controlling it, and continuously monitoring it. Specifically, this includes awareness and challenging dysfunctional or negative career thoughts that can get in the way of making a career decision. CIP theory asserts that negative thoughts, poised at the top of the pyramid, trickle down and impact every other aspect of the decision-making process. For example, low self-esteem is likely to impact how one evaluates interests and capabilities, as well as what career options are personally

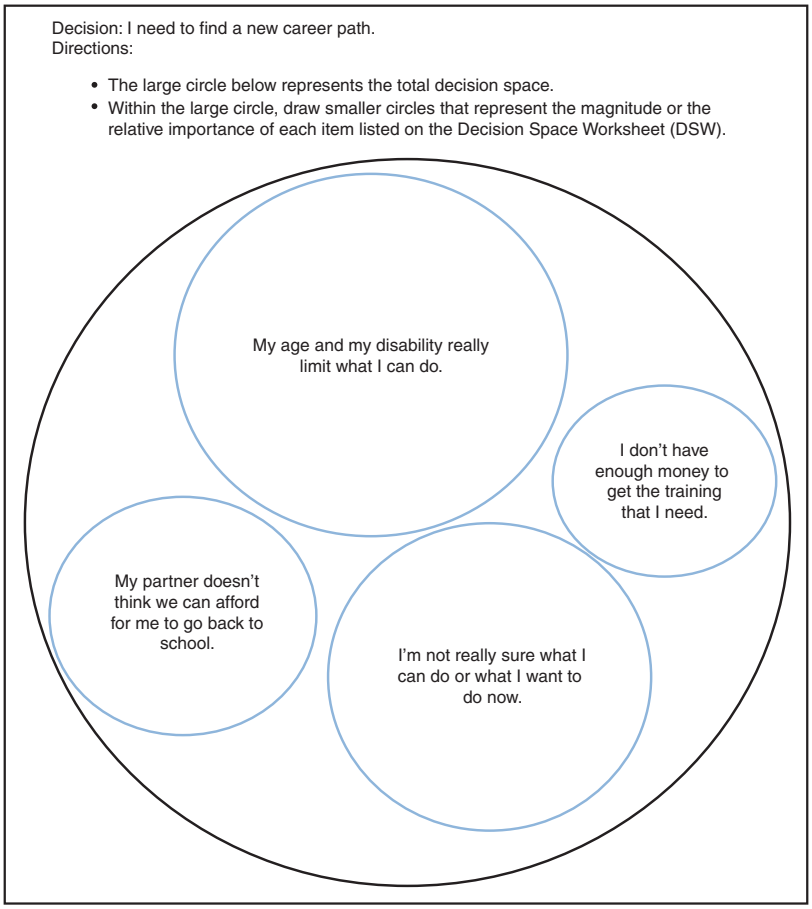
Decision: I need to find a new career path.
Directions:
• The large circle below represents the total decision space.
• Within the large circle, draw smaller circles that represent the magnitude or the relative importance of each item listed on the Decision Space Worksheet (DSW).
My age and my disability really limit what I can do.
I don't have enough money to get the training that I need.
My partner doesn't think we can afford for me to go back to school.
I'm not really sure what I can do or what I want to do now.

**Figure 8.3** ***Sample decision space worksheet.***

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available. Low self-esteem might also cause a person to question how well he or she can make decisions. Because of the potential impact of negative self-talk on a person's career decision-making ability, a counselor must help the client become aware, understand, challenge, and monitor negative self-talk throughout the career decision-making process.

### *The Readiness Model*

A more recent development of the CIP theory is the readiness model (see Figure 8.4), which can be used to determine how much support an individual will need with his or her career choice (Sampson, Peterson, Reardon, & Lenz, 2000). This model comprises two factors, *capability* and *complexity*. Capability refers to the individual's intellectual and emotional ability to make rational decisions, and can be affected by emotional state and intelligence. Complexity refers to the events or circumstances happening in a person's life during the time he or she needs to make a career decision. Poverty, divorce, loss or change of work, and poor health are examples of issues that increase the complexity of the decision the person has to make.

As the readiness grid indicates, the interaction between one's capability to make decisions and the current complexity surrounding the individual and the decision suggests the level of support that a person will need. Someone who has high readiness will be more self-directed, perhaps requiring direction to a self-assessment or information resources, but ultimately less intensive help from a career specialist. Someone with a moderate amount of readiness will require brief-assisted help, perhaps three to five sessions, in which a career specialist might develop a written plan of steps to narrow the career gap. For example, to make a career choice, an individual learning plan (ILP) might be created, as demonstrated in Table 8.1. Based on this ILP, the individual would have a combination of self-paced activities as well as meeting with the counselor to reflect on progress and determine next steps.

A low readiness may need an individual case-managed approach to career counseling. Most likely, an inventory that measures dysfunctional career thinking, such as the CTI (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a), would be a useful starting tool, as it can identify problem areas in thinking. While the individual with low readiness might engage in similar activities as the person with moderate or high readiness, the difference is in the level of support received by the career specialist.

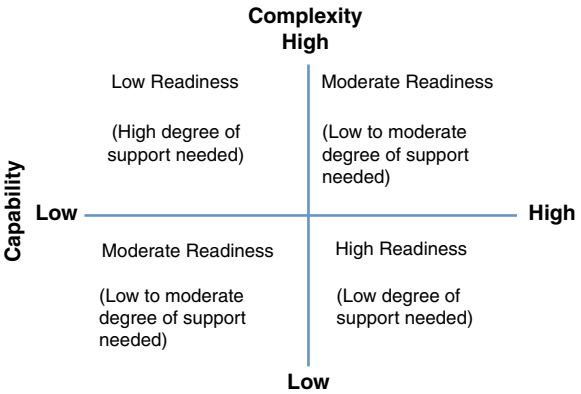


Figure 8.4 *Readiness model.*
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Table 8.1 *Sample Individual Learning Plan*

| | **Goal 1:** To choose a career | | | | |
|---|---|---|---|---|---|
| | **Goal 2:** To learn how to prepare for that career | | | | |
| **Activity** | **Purpose** | **Resource(s) Needed** | **Time Required** | **Priority** | **Related to Goal Number** |
| Self-assessment | Expand options to consider | Self-directed search | 30 minutes | 1 | 1 |
| Meet with counselor | Review results, narrow options | Counselor and printout | 30 minutes | 2 | 1 |
| Research options | Narrow options to 3–5 | O*NET | 1 hour | 3 | 1 and 2 |

Information on CIP research is housed at the Center for the Study of Technology in Counseling and Career Development (www.career.fsu.edu/techcenter), and includes a CIP bibliography, multiple technical reports, and presentations. The current CIP bibliography includes 14 citations listed under CIP research, 60 works focusing on dysfunctional career thoughts, and 64 works organized under the heading "CIP Applications," totaling 138 articles, dissertations, and similar research outputs that support and extend the use of CIP for solving career problems with diverse populations and settings.

## CIP THEORY AND DISABILITY

### *CIP and CTI Research as Applied to People With Disabilities*

Within the body of research on CIP theory and the CTI, only a handful of studies have investigated the nature of dysfunctional career thinking among individuals with disabilities. These studies have examined dysfunctional career thinking within specific disability populations, made comparisons between individuals with and without disabilities, or explored the relationship between career thoughts and various career and psychological variables. Yanchak, Lease, and Strauser (2005) investigated the nature of dysfunctional career thinking in individuals with cognitive and physical disabilities. The study revealed that individuals with cognitive impairments exhibited more difficulties with respect to decision-making confusion and external conflict than individuals with physical disabilities. Similarly, in a sample of 39 individuals with traumatic brain injury (TBI), de Pereira (2008) found that 54% of the sample demonstrated moderate (CTI-DMC, CTI-CA) to severe levels (CTI-EC) of difficulty in career decision making. Gender differences were identified in two studies with men exhibiting higher levels of dysfunctional thinking than females (de Pereira, 2008; Painter, Prevatt, & Welles, 2008). Lustig and Strauser (2003) conducted a study to identify groups of individuals with psychiatric disabilities based on their level of dysfunctional thinking. Three distinct groups emerged through analysis: (1) those with dysfunctional career thoughts, (2) those experiencing external conflicts, and (3) those who exhibited productive career thinking. This finding suggests that the CTI may be useful in determining appropriate levels of career intervention for individuals with disabilities.

Several studies explored differences between individuals with and without disabilities yielding mixed results. In 2002, Strauser, Lustig, Keim, Ketz, and Malesky found no

differences in dysfunctional career thinking between 63 individuals with disabilities and a convenience sample of 149 college students without disabilities. Conversely, Dipeolu, Reardon, Sampson, and Burkhead (2002) found that when compared to the college-age normative group for the CTI (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b), college students with learning disabilities actually had lower levels of dysfunctional career thinking as measured by the CTI–Total score as well as lower levels of DMC and CA, though they exhibited higher EC scores. In 2004, Strauser, Lustig, and Uruk conducted a similar study, attempting to adjust for sampling issues. In contrast, this study revealed that individuals with disabilities exhibited higher scores on all CTI scales suggesting greater levels of overall dysfunctional career thinking and decision-making confusion. The primary difference noted by the authors was the effect sizes revealed in their study. In the other studies (Dipeolu et al., 2002; Strauser et al., 2002), effect sizes were small while in their study effect sizes ranged from medium ($d = 0.41$ for Decision-Making Confusion) to large ($d = 0.79$ for the CTI–Total), suggesting practical and meaningful differences between the groups of individuals with and without disabilities.

Research has also been conducted to examine the relationship of dysfunctional career thinking to various vocational and psychological variables in individuals with disabilities. For example, Dipeolu et al. (2002) found that lower levels of dysfunctional career thinking were associated with positive adjustment scores in college students with learning disabilities. Findings from other studies have shown that dysfunctional career thoughts were negatively correlated with attention deficit hyperactivity disorder (ADHD) symptoms (Painter et al., 2008) and with vocational identity and career maturity in a sample of high school students with learning disabilities (Dipeolu, 2007). In a sample of individuals with substance disorders, Slatten (1999) found that decision-making confusion was positively correlated with self-appraised problem-solving ability and negatively correlated with the level of education. More recently, Lustig and Strauser (2008) found that individuals with disabilities who reported a strong sense of coherence, that is, that they find the world comprehensible, manageable, and meaningful, also reported lower levels of dysfunctional career thoughts.

## THE CAREER THOUGHTS INVENTORY

### *Description and Purpose*

The career thoughts inventory (CTI) (Sampson et al., 1996a) is an assessment tool based on CIP theory (Sampson et al., 2004). It can be used to determine readiness for career problem solving and career decision making or as an intervention to improve thinking related to career choice. The CTI measures dysfunctional career thoughts that can impede or block information processing necessary for effective engagement in the career decision-making process. Career thoughts are defined as "outcomes of one's thinking about assumptions, attitudes, behaviors, beliefs" (Sampson et al., 2004, p. 91). As an indicator of career choice readiness, the CTI aids both the counselor and the client in better understanding the impact of career thoughts in the career decision-making process. Identifying potential dysfunctional career thoughts allows the client to begin to challenge and alter negative thinking, preparing them to fully explore information about themselves, options under consideration, and make informed career decisions.

The 48-item inventory is a brief, self-administered measure that can be used with high school students, college students, and adults. The CTI consists of a total score and three subscale scores. Alpha reliability coefficients for the CTI total score range from .93 to .97 across all three populations. Reliability coefficients for the Decision-Making

Confusion scale were .90 to .94 and slightly lower coefficients were found for Commitment Anxiety (.79–.91) and External Conflict (.74–.81), yet support the internal consistency of the measure and its scales. Convergent validity data for the CTI across high school students, college students, and adults consistently shows significant correlations with similar measures such as the My Vocational Situation, Career Decision Scale, Career Decision Profile, and the NEO Personality Inventory (Feller and Daly, 2009). Internal consistency (alpha coefficients) for the CTI total scale has been reported ranging from .97 to .93. Additional validity and normative data for these populations is reported in the CTI manual (Sampson et al., 1996b).

The inventory draws on concepts from cognitive therapy suggesting that dysfunctional cognitions have a negative impact on thoughts and emotions. Negative career thoughts are theorized to have implications for all aspects of the career development process including understanding of interests, values and skills, occupational and employment information, and decision-making skills.

When appropriate, the use of the accompanying CTI workbook (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996c) assists the client in identifying, challenging, and altering negative career thoughts that interfere with the career decision-making process. Workbook exercises encourage clients to reframe thoughts reflected in items endorsed on the CTI to minimize the impact of negative thinking on their ability to confidently and comfortably engage in effective career decision making.

## *Interpretation*

Interpretation of the CTI is based on the total CTI score and three construct scale scores (Sampson et al., 1996b). The total score provides a measure of a general state of indecision or confusion about the career problem-solving and decision-making process. Individual scale scores help to locate potential blocks in the CASVE cycle. The three construct scales are Decision-Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC). Higher CTI total scores reflect dysfunctional career thoughts that can impede the effective processing of information necessary to fully engage in career problem solving and decision making. Lower scores suggest fewer dysfunctional career thoughts that serve as a barrier to effective career decision making. The interpretation and use of the construct scales are described below.

### Decision-Making Confusion

The DMC scale assesses dysfunctional thoughts and emotions involved in generating options, as well as exploring and evaluating appropriate career alternatives (Sampson et al., 1996b). Items in this scale can reflect uncomfortable emotions such as depression and anxiety as well as confusing thoughts that interfere in the ability to gather self-knowledge and occupational knowledge needed to generate possible career options (Saunders, Peterson, Sampson, & Reardon, 2000). High DMC scores suggest the need for assistance in better understanding how to go about making career choices and may indicate a need for additional assessments to further clarify the intensity of the emotions.

### Commitment Anxiety

The CA scale reflects an inability to make a commitment to a career choice and is often accompanied by anxiety or fear of the outcome of the decision-making process (Sampson

et al., 1996b). High CA scores could indicate the need for further assessments to determine the contribution of anxiety to the client's indecision (Lenz, Peterson, Reardon, & Saunders, 2010).

### External Conflict

The EC scale assesses the extent to which clients can effectively balance the views of significant others with their own values in the career decision-making process. High EC scores may indicate locus of control issues that keep the client from independently making choices and taking action (Lenz et al., 2010; Saunders et al., 2000).

The CTI can be a useful tool to clarify areas to explore with the client. Interpretation of the total score and construct scales (DMC, CA, and EC) help increase client awareness of areas that may be keeping them stuck. Review and discussion of the client's responses to the individual items allows for further exploration of the impact of limited self or occupational knowledge, tension, and worry about the choice, significant relationships, culture, or issues of disability for the individual. Creating a space for this type of exploration in career counseling provides an opportunity to enhance client self-understanding and self-awareness related to thinking in career choice that in turn enhance career choice readiness.

## CASE ILLUSTRATION OF THE USE OF THE CTI IN CAREER COUNSELING

### *Janelle*

#### Background

Janelle is a 32-year-old, single, African American female seeking career counseling assistance to explore career and employment options subsequent to a back injury that limited her mobility and left her unable to work at her former job. Eight months ago, Janelle fell from a tree playing a game with a group of youth she was leading at an outdoor camp. She stated that she enjoyed working outdoors and was passionate about using this environment to help build character and leadership in the groups of youth she led. Injuries resulting from the accident led to back surgery and months of physical therapy (PT). Despite surgery and PT, she continues to experience mild to moderate pain managed with pain medication. Some days are worse than others, making it necessary to call in sick to work.

Currently, Janelle works part time for a recreational and outdoor retail store assisting with office work at the corporate headquarters. She expressed frustration about being underemployed and a desire to return to work outdoors engaged in "meaningful work." Janelle completed her BA in Recreation and Tourism Management and had been working with young people in outdoor educational learning environments for 6 years prior to the accident. In addition to frustration related to her work, she reported feelings of sadness, frustration over input from concerned family members, worry about the future, anger about her injury and current physical limitations, and pessimism about the prospect of more appealing options in her work life.

### CTI Interpretation

Following the initial counseling interview, the CTI was administered to determine her readiness to engage in the career decision-making process. Her CTI scores revealed an elevated total score (T > 68), suggesting that she was engaging in thinking that was hindering her ability to effectively explore options, gather information, and make informed career choices. The construct scales showed a T score of 70 on the DMC scale indicating that she was feeling overwhelmed by the task and struggling to clarify self-knowledge and make connections to occupational options. She endorsed items such as "I get so depressed about choosing a field of study or occupation that I can't get started," "I'll never find a field of study or occupation that I really like," and "Choosing an occupation is so complex, I'll never be able to make a good choice."

The CA scale revealed a T score of 56 suggesting that she experiences mild tension and worry about taking action and committing to a choice. Items such as "I'm afraid I am overlooking an occupation" and "I can't be satisfied unless I can find the perfect occupation for me" were endorsed on the inventory.

Items endorsed on the EC scale resulted in a T score of 64 and included the following items, "Whenever I have become interested in something, important people in my life disapprove" and "I'm always getting mixed messages about my career choice from the important people in my life." These scores suggest that she experiences a conflict between the desires of significant others for her future and her own desires.

### Integration of the CTI in Career Counseling

Janelle and the career counselor reviewed her CTI total and construct scores. The content informed both the career counselor and Janelle, helping her more clearly see where her thinking was interfering with her ability to explore options and take action on an appropriate choice. It was not until they discussed the items individually that she became fully aware of the extent to which negative thoughts about herself and future options were hindering her ability to accurately view her skills and experiences and effectively relate them to possible employment options.

Review of the CTI helped Janelle to begin to accept the loss she felt from the absence of her former position and identity associated with that work/life role. She soon recognized that the advisement of family and friends was just that, allowing her to make independent choices and find useful ways to incorporate their input. She worked to reduce the anger she felt about her limitations and inability to be employed doing active outdoor work, and became open to exploration of alternative options. Discussion of individual CTI items and use of the CTI workbook to reframe dysfunctional career thoughts prepared Janelle for exploration of occupational options consistent with her interests, values, and skills post-injury.

## RESEARCH USING THE CTI

Initial research related to the development of the inventory resulted in findings indicating significant inverse correlations of the CTI with positive constructs such as vocational identity, certainty, knowledge of occupations and training, decidedness, and comfort with choice (Sampson et al., 1996b). CTI scores were positively correlated with the constructs of neuroticism, vulnerability, anxiety, and depression.

Following the publication of the CTI and the CTI Professional Manual, there have been further efforts to validate the constructs of the instrument and examine the application of its usefulness in a variety of populations. Saunders et al. (2000) found that the CTI total score was significantly positively correlated with career indecision, trait anxiety, state anxiety, and depression. A study by Osborn (1998) showed that the CTI scales were moderately related to perfectionism, concern about mistakes, doubt about actions, and parental criticism. Other studies demonstrated that the CTI scales were not related to either anger (Strausberger, 1998) or interests (Wright, Reardon, Peterson, & Osborn, 2000). The CTI scales were able to differentiate between persons with diagnosed learning disabilities and those without (Dipeolu et al., 2002; Dipeolu & Keating, 2010), and between persons classified in ego statuses as diffused, foreclosed, moratorium, and achieved (Voight, 1999).

More recently, research conducted using the CTI found that dysfunctional career thoughts negatively correlated with openness, conscientiousness, extraversion, agreeableness, and emotional stability (Bullock-Yowell, Andrews, & Buzzetta, 2011). Findings from other studies have shown that dysfunctional career thoughts were positively correlated with the emotionality component of test anxiety (Sud & Kumar, 2006), and negatively correlated with income (van Ecke, 2007). Studies have consistently found that dysfunctional career thoughts decrease following involvement in a career course (Osborn, Howard, & Leierer, 2007; Reed, Reardon, Lenz, & Leierer, 2001; Thrift, Ulloa-Heath, Reardon, & Peterson, 2012). Thrift et al. (2012) found that a career course had a significant effect on total CTI scores and course interventions including the use of the CTI workbook and a career research intervention had a significant effect on CTI subscales of DCM and CA.

## CASE ILLUSTRATION APPLYING CIP THEORY TO DISABILITY

### *Jerry*

#### Background

Jerry is a 27-year-old, single Caucasian male receiving vocational rehabilitation services at a vocational evaluation and job placement agency in his community. He sustained TBI in a motor vehicle accident at age 26 when the car he was driving was hit by a drunk driver. As a result of the accident, Jerry suffered both physical injury and cognitive deficits. Though most of the physical injuries have healed, he continues to experience moderate difficulties with memory and concentration. He also reports that he is now quick to anger and has a low frustration tolerance with himself and others. He has frequent headaches as well as symptoms of depression that come and go since the accident.

Prior to the accident, Jerry was employed full time as an account executive for a large office-product supply company. He held the position for 3 years and was consistently one of the top producers in the Southeast region. He reported that he enjoyed the flexible and independent nature of his work and was often called upon to train new employees. Initially, Jerry attempted to return to his previous position but it soon became evident that he was missing sales appointments and having difficulty in recalling the large amount of product information that his job required. On several occasions, he got into verbal altercations with co-workers

and clients. After 2 months, it was determined that Jerry could no longer complete the essential job requirements. Additionally, Jerry was becoming increasingly depressed, angry, and frustrated with the situation.

### Career Counseling Process With Jerry

During the initial interview, Jerry reported he would like to find employment he is able to do, but that he is uncertain of his current abilities and his options (*communication stage*). He stated that this sales position was the only job he has held following the completion of his BA degree in computer science and that he had obtained the job through a friend of his father. Jerry indicated a lack of confidence in his job-seeking abilities since he had only that job and he believes that he did not have to do much to get it. Given his recent termination, he also expressed worry that his problems with memory, concentration, and anger will continue to interfere with his ability to maintain employment. Addtionally, he reported financial concerns related to his employment status as he and his fiancé were trying to save money for their honeymoon and a house. Based on the amount of emotion that Jerry demonstrated and the number of concerns that Jerry expressed during the interview process, the counselor asked Jerry to complete a Decision Space Worksheet to identify all the factors that he believed were impacting his career decision. As a part of this exercise, Jerry was also asked to identify the extent to which he thought each factor would impact his career decision. The counselor explained to Jerry that they would be able to use this information in determining appropriate steps in his ILP. As part of the vocational evaluation process, Jerry completed the CTI to assess his dysfunctional career thinking and career decision-making readiness. Based on Jerry's slightly above-average CTI total score (T = 53), the counselor determined that Jerry exhibited moderate problems in career decision making. It was also noted that his EC score (T = 64) was higher in relation to his DMC score (T = 54) and his CA score (T = 53), suggesting difficulties in reconciling his self-perceptions with input from others. Given his CTI results and interview data, the counselor judged Jerry to have low capability and high complexity, indicating a low level of career readiness. This low level of readiness suggests that Jerry will require a high degree of support as he moves through his career transition and thus would best be served using an individual case-managed approach.

Eager to find new employment, Jerry agreed to continue meeting with the career counselor in an effort to better understand his career options and the career decision-making process. First, the counselor shared the pyramid of information processing with Jerry to illustrate the components involved in making a good career choice. She also shared with him a handout depicting the CASVE cycle in order to help him understand the steps involved in making career decisions. With his *initial interview* and *assessment* complete, Jerry and the career counselor then worked together to identify specific goals and to develop an ILP. The ILP was revised twice to reflect updates and the final plan including the agreed-upon career goals is presented in Table 8.2.

During the *analysis* and *synthesis* steps in the decision-making process, the counselor reviewed the vocational evaluation results with Jerry to help him better understand his skills, interests, and values. The assessment results revealed that Jerry enjoyed working with computers and machinery that aligned with his college degree. Recommendations from the vocational evaluator indicated that Jerry would work best in environments that provided a regular schedule and routine tasks. Through the counseling sessions,

Table 8.2 *Jerry's Individual Learning Plan*

| | **Goal 1:** Clarify self and occupational knowledge | | | | |
|---|---|---|---|---|---|
| | **Goal 2:** Restructure negative career thoughts | | | | |
| | **Goal 3:** Understand barriers to career decision making | | | | |
| | **Goal 4:** Improve decision-making skills | | | | |
| | **Goal 5:** Enhance job search skills | | | | |
| **Activity** | **Purpose** | **Resource(s) Needed** | **Time Required** | **Priority** | **Related to Goal Number** |
| Individual counseling | Review vocational evaluation results, assistance with using career resources | Counselor and assessment results | Weekly sessions, 1 hour per session | 1 | 1, 2, 3, 4 |
| CTI workbook | Challenge and reframe negative career thoughts; increase career decision making | CTI workbook | 3–4 hours | 2 | 2, 3, 4 |
| Research options | Narrow options to 3–5 | Varied career resources; counselor | 1–2 hours | 3 | 1 |
| Resume critique | Enhance resume | Resume resources; counselor | 1 hour | 4 | 5 |
| Interview workshop | Sharpen interview skills | Group leader | 1 hour | 5 | 5 |

Reprinted from http://www.career.fsu.edu/techcenter/designing_career_services/basic_concepts/index.html

Jerry came to understand how his negative career thoughts were interfering with his ability to fully consider his career options. He realized that the advice he was getting from his parents and especially his fiancé was clouding his judgment and adding to his feelings of anger and pressure. In between counseling sessions, Jerry was directed to conduct some individual research in the resource library at the center. Through these steps, Jerry was able to identify three possible occupations for consideration.

Next, in the *valuing* phase of the CASVE cycle, Jerry worked with the counselor to weigh each of the identified options and select the one he was most interested in pursuing. As a result, Jerry decided he wanted to further explore additional training and employment options for becoming a computer programmer. In the *execution* phase, the counselor assisted Jerry in developing a plan for implementing his decision. Jerry and his counselor met for a final session to review his counseling goals and progress made. Jerry reported that his frustration and anger had begun to subside and while he realized that he may continue to have some problems he is more confident and hopeful about his ability to identify alternative employment.

## SUMMARY

Having empirically based theories and tools is a requisite for effective career counseling. The CIP theory and the CTI have yielded substantial research supporting their

utility and application to the career decision-making process for people with and without disabilities. This chapter included two brief case scenarios demonstrating how to incorporate CIP and the CTI into career counseling with individuals who have a disability.

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# *Chapter 9: Empowerment Through Employment: Job Satisfaction Theories and Research*

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***After reading this chapter, you should be able to:***

1. Describe popular theories and research on the antecedents and consequences of job satisfaction.
2. Describe the empirical research on the job satisfaction of people with disabilities.
3. Understand ways to help individuals with disabilities find satisfying work.

> "I would love to go back to work … but no one wants to hire someone with a health/work history like mine."
>
> "… they don't seem to listen to my true needs, and as a result money and time is wasted changing things that don't need to be changed while ignoring things that do. This all seems to fall under the category of 'I think I know what's best for you and you don't.'"
>
> "For the most part my input and work efforts appear to be respected and appreciated. However, there are those who, for whatever reason, appear to be very uncomfortable with and around me."

As these quotes from a recent Society for Human Resource Management publication illustrate (cited from www.shrm.org/HRDISCIPLINES/Pages/default.aspx), people with disabilities face unique challenges in finding and experiencing satisfying work. This is problematic, as a vast amount of research suggests that finding meaningful, satisfying work is associated with positive work outcomes such as job performance and attendance at work. Job satisfaction has also been linked to greater satisfaction in other nonwork life roles, such as family satisfaction and general life

satisfaction (Hulin & Judge, 2003). In fact, because job satisfaction is associated with many positive outcomes, it is not surprising that it is one of the most widely studied topics in industrial and organizational psychology (Spector, 1997). This chapter provides a brief overview of the theories and empirical research that have shaped our understanding of the job satisfaction construct. We provide an overview of the definition and measurement of job satisfaction, the consequences associated with job satisfaction, and its antecedents. Then, we discuss research that focuses specifically on the job satisfaction of people with disabilities, including the unique challenges that they face and ideas for rehabilitation and career counselors who help people with disabilities to find satisfying work.

## DEFINITION AND MEASUREMENT OF JOB SATISFACTION

Job satisfaction is commonly conceptualized as an affective variable that results from an assessment of one's job experiences. Locke (1976) defined job satisfaction as "… a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 1300). Cranny, Smith, and Stone (1992) viewed it as "an affective (that is, emotional) reaction to a job, that results from the incumbent's comparison of actual outcomes with those that are desired (expected, deserved, and so on)" (p. 1). In simple terms, job satisfaction is "the extent to which people like their jobs" (Spector, 2000, p. 197).

Even though most *definitions* emphasize the affective nature of job satisfaction, most *measures* of job satisfaction tend to have a strong cognitive, rather than affective, component (Fisher, 2000; Organ & Near, 1985). Typically, measures ask people to evaluate how satisfied they are by comparing their job experience to some standard, such as prior expectations or a reference group of other workers. More recently, Hulin and Judge (2003) defined job satisfaction as "… multidimensional psychological responses to one's job. These responses have cognitive (evaluative), affective (or emotional), and behavioral components" (p. 255). In other words, job attitudes are composed of feelings, behaviors, *and* thoughts about work.

Surveys suggest that people generally do like their jobs. A 2011 Gallup Poll found that the vast majority of Americans were generally satisfied with their jobs and with most aspects of their jobs. In the early 2000s, Gallup Poll results suggest that over 90% of Americans were happy with their jobs. In 2008, the percentage of people satisfied with their jobs dropped below 90% and continued to drop to a low of 86.9% in 2010. Thus, Gallup Polls show that the vast majority of workers are satisfied with their jobs, but job satisfaction tends to vary with the state of the economy (Gallup Poll, 1999, 2001, 2003).

Although job satisfaction tends to be high overall, some people tend to be more satisfied than others. For example, job satisfaction tends to increase with age (Brush, Moch, & Pooyan, 1987; Siu, Spector, Cooper, & Donald, 2001). In fact, the 2011 Gallup Poll results show that older workers had the highest job satisfaction rate of all groups at 94.8%.

Siu et al. (2001) suggested that older workers are more satisfied because they tend to have better coping skills and well-being than younger workers. It is unclear whether there are sex and racial differences in job satisfaction. Some research has found that men and women were equally satisfied with their jobs (Brush et al., 1987; Witt & Nye, 1992), whereas a study of 3,400 employees (Mor Barak & Levin, 2002) found that perceptions of exclusion related to lower job satisfaction and well-being for women (and ethnic minorities). Brush et al. found no evidence for racial differences in job satisfaction, yet Greenhaus, Parasuraman, and Wormley (1990) and Tuch and Martin (1991) found that Blacks were less satisfied than Whites. Both studies suggest that the lower satisfaction is due to Blacks

generally receiving less satisfying jobs (i.e., lower-paying, less stable) than Whites. The 2011 Gallup Poll results mirror these findings, as only 83.1% of Blacks were satisfied with their jobs, and only 82.1% of people at the lowest income levels were satisfied.

Job satisfaction has been measured using both global and facet measures. Global measures focus on overall feelings about the job and are used to predict behavior such as quitting. Facet measures focus on satisfaction with specific aspects of the job and are used to diagnose strengths and weaknesses at an organization or in a workgroup (Ironson, Smith, Brannick, Gibson, & Paul, 1989; Judge & Kammeyer-Mueller, 2012). Facets might include satisfaction with coworkers, fringe benefits, job conditions, pay, supervision, or the amount of personal growth offered at work (Spector, 1997).

Job satisfaction is most commonly measured via self-report questionnaires (see examples in Table 9.1). Popular facet measures include the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969, 1985), the Job Satisfaction Survey (JSS; Spector, 1985a), the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967), and the Job Diagnostic Survey (JDS; Hackman & Oldham, 1975). Global scales, such as the Job in General Scale (JIG; Ironson et al., 1989), the Faces scale (Kunin, 1955), and the Michigan Organizational Assessment Questionnaire satisfaction subscale (Cammann, Fichman, Jenkins, & Klesh, 1979), measure general or overall job satisfaction. Description of each measure is beyond the scope of this chapter, but interested readers can refer to the citations offered for more information.

**Table 9.1** *Major Job Satisfaction Measures*

| Name | Authors | Type | Basic Description |
|---|---|---|---|
| Job Descriptive Index | Smith, Kendall, and Hulin (1969); Smith et al. (1985) | Facet | Satisfaction with coworkers, the work itself, pay, opportunities for promotion, and supervision |
| Job Satisfaction Survey | Spector (1985a) | Facet | Pay ($\alpha = 0.75$), promotion ($\alpha = 0.73$), supervision ($\alpha = 0.82$), benefits ($\alpha = 0.73$), contingent rewards ($\alpha = 0.76$), operating procedures ($\alpha = 0.62$), coworkers ($\alpha = 0.60$), nature of work ($\alpha = 0.78$), communication ($\alpha = 0.71$) |
| Minnesota Satisfaction Questionnaire | Weiss, Dawis, England, and Lofquist (1967) | Facet | Examples include: achievement, recognition, security, and working conditions |
| Job Diagnostic Survey | Hackman and Oldham (1975) | Facet | Measures general satisfaction ($\alpha = 0.77$), internal work motivation ($\alpha = 0.67$), and growth satisfaction ($\alpha = 0.91$); facets include security ($\alpha = 0.73$), compensation ($\alpha = 0.88$), coworkers ($\alpha = 0.63$), and supervision ($\alpha = 0.89$) |
| Job in General Scale | Ironson et al. (1989) | General | Global scale that accompanies the facet scales of the job descriptive index; $\alpha = 0.91$ |
| Faces Scale | Kunin (1955) | General | Measures global job satisfaction using five faces that range from frowning to smiling |
| Michigan Organizational Assessment Questionnaire (satisfaction subscale) | Cammann, Fichman, Jenkins, and Klesh (1979) | General | Global job satisfaction scale; example item: "all in all I am satisfied with my job" |

## CORRELATES OF JOB SATISFACTION

Not only is having satisfying work an important end in and of itself, but also people who are satisfied with their jobs tend to experience other positive behavioral, affective, and health outcomes. This section summarizes research linking job satisfaction to job performance, withdrawal behaviors, life satisfaction, and health.

### *Job Performance*

It is intuitively appealing to believe that those who are more satisfied at work are also more productive (Iaffaldano & Muchinsky, 1985). An often-cited meta-analysis found that job satisfaction correlates with performance around 0.30 to 0.31 (Judge, Thoresen, Bono, & Patton, 2001). Thus, it seems clear that there is a small to moderate positive relation between satisfaction and job performance.

The old adage "a happy worker is a productive worker" suggests that satisfaction leads to performance. However, some researchers (e.g., Locke, 1976; Porter & Lawler, 1968) have argued that the relationship is reversed—that good job performance leads to high satisfaction. When performance is high and leads to valued rewards, such as feelings of success and achievement, promotion, or raises, then job attitudes are likely to be positive. In fact, stronger correlations have been found between satisfaction and performance for higher-level employees, where stronger extrinsic reward contingencies are likely to be found (Petty, McGee, & Cavender, 1984). In a longitudinal study of almost 700 people who were studied from age 13 through their late 40s, Wulff, Bergman, and Sverke (2009) found that general mental ability at age 13 predicted school achievement which led to school satisfaction. Later, work achievement led to greater job satisfaction. In other words, achievement mediated the relationship between ability and satisfaction, suggesting that performance leads to job satisfaction. Judge et al. (2001) point out that the performance-leads-to-satisfaction assumption has not been consistently supported in empirical studies and instead suggest that satisfaction and performance likely mutually influence each other.

Another approach for understanding the job satisfaction–performance relation has been to examine specific aspects of job performance. Job performance is multidimensional (Campbell, McCloy, Oppler, & Sager, 1993) and two main performance dimensions are task and contextual performance (Borman & Motowidlo, 1993). Task performance includes behaviors that form the technical core of a job (such as lawyers doing the work of advising clients and testifying in court), whereas contextual performance includes behaviors that support the technical core through improving the organizational, social, and psychological environment in which task performance occurs (such as helping to train a new coworker). Job satisfaction has been shown to relate positively to contextual performance or extra-role behavior (e.g., Tsai & Wu, 2010), and the correlation tends to be higher than that found between job satisfaction and task performance.

### *Withdrawal Behaviors*

It seems reasonable to assume that those who are dissatisfied with their jobs are likely to miss work more often than others. However, a meta-analysis of 707 correlations found that the mean correlation between job satisfaction and absenteeism was only –0.09 (Hackett & Guion, 1985), suggesting that the two variables are only weakly related. This finding has been echoed in more recent studies (Farrell & Stamm, 1988; Matrunola, 1996). Hackett and Guion suggested that absence is less likely caused by job dissatisfaction but

more likely "… a process in which workers are *drawn out* of the workplace by valued features of their nonwork environments" (Hackett & Guion, 1985, p. 375).

Voluntary turnover is another commonly studied withdrawal behavior (e.g., Dickter, Roznowski, & Harrison, 1996; Mitchell, Holtom, Lee, Sablynski, & Erez, 2001). At the individual level, voluntary turnover is the choice to quit the job. Studies have commonly found a small-to-moderate link between job dissatisfaction and turnover (Yang, 2010). Not surprisingly, as unemployment rates increased, the job satisfaction–turnover relation decreased. This suggests that people tend to stay at their jobs despite being dissatisfied when alternative job opportunities are limited (Carsten & Spector, 1987). Most models of the turnover process (e.g., see Hulin, 1991) suggest that dissatisfaction in the *present* situation is expected to lead to intentions to seek alternatives. Not only are intentions to search and quit influenced by current job satisfaction, but they are also influenced by an evaluation of *future* expectations. People compare the outcomes they expect to obtain if they continue to stay in the present job with the expected outcomes of possible alternative job opportunities. Thus, the likelihood of obtaining alternatives and the rewards that are associated with each alternative are evaluated. Intentions to search for alternatives and quit are then the immediate precursors to turnover behavior. Evaluating possible job alternatives may then cause us to reevaluate our satisfaction with our current job. This helps to explain why dissatisfaction and turnover do not always go hand in hand. For example, if we are dissatisfied, but we perceive that there are no suitable alternatives available, then we are likely to stay in the same job, but we may participate in other forms of withdrawal behavior (e.g., absences, daydreaming at work, and reducing job inputs). Alternatively, we might stay at a dissatisfying job if we expect that the job will facilitate our future career. Likewise, we might leave a satisfying job if an alternative job is perceived to be even more attractive and attainable.

### *Life Satisfaction*

Up to this point, we have discussed the relationship between job attitudes and job behaviors. This section focuses on the relation between job attitudes and other attitudes. In particular, we focus on how job satisfaction relates to life satisfaction, in general. Many studies have examined this relationship (e.g., Heller, Judge, & Watson, 2002; Ilies, Wilson, & Wagner, 2009; Iverson & Maguire, 2000).

Three main hypotheses have been offered: the spillover, compensation, and segmentation hypotheses (Rain, Lane, & Steiner, 1991). The spillover hypothesis suggests that the feelings in one area of life will affect feelings in other areas of one's life. In other words, job and life satisfaction should be positively correlated. The compensation hypothesis proposes that people will tend to compensate for dissatisfaction in one area of their life with satisfaction in another (e.g., people in dissatisfying job situations will seek more satisfaction and pleasure in their home lives). That is, life and job satisfaction are expected to be negatively correlated. The segmentation hypothesis argues that people compartmentalize their lives and do not allow work and nonwork satisfaction to influence each other. Thus, job and life satisfaction may be unrelated.

Most studies have found a positive relation between job and life satisfaction, providing empirical support for the spillover hypothesis (e.g., Ilies et al., 2009). Ilies et al. found that spillover effects were stronger for employees with highly integrated work and family roles (i.e., those who find it difficult to separate their work and family lives, such as someone who takes work on a family vacation). In a longitudinal study, Judge and Watanabe (1993) examined the causal direction of this relationship and found that job and life satisfaction were reciprocally related. The relation between job and life

satisfaction may be due, in part, to general dispositional tendencies to experience positive mood states (usually called positive affect) or negative mood states (negative affect). Watson and Slack (1993) argued that affective dispositions influence job satisfaction, which may lead to life satisfaction. Then, better life satisfaction leads to better adjustment (i.e., higher positive and lower negative affect).

### Health

The Job Demands-Resources (JD-R) model is designed to explain the health-impairing and health-enhancing effects of the work context (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). A study of 745 employees showed that burnout was predicted by greater job demands and lesser need satisfaction at work. Yet, when workers were given the needed job resources, they experienced greater need satisfaction at work and had more vigor (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). These relationships are detailed in the model shown in Figure 9.1.

Most popular models of the antecedents and consequences of job stress include job dissatisfaction as an example of a short-term consequence resulting from experiencing stressors in the workplace. Short-term negative consequences, such as job dissatisfaction, then lead to longer-term physical and psychological problems (e.g., see Kahn & Byosiere, 1992).

Burnout is a longer-term problem. Burnout has been defined as "… a psychological syndrome in response to chronic interpersonal stressors on the job. The three key dimensions of this response are an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment" (Maslach, Schaufeli, & Leiter, 2001, p. 399). Burnout correlates negatively with job satisfaction, job commitment, and organizational commitment. Those who experience burnout have experienced "chronic mismatches" with their work environment in terms of workload, control, rewards, social support, fairness, or values. Burnout can lead to negative outcomes such as job dissatisfaction, a lack of identification with the organization (Tsai & Wu, 2010), and a reduced sense of accomplishment at work (Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2009).

There is evidence to suggest that commitment to the organization can buffer the effects of job stress on job satisfaction (Begley & Czajka, 1993). People who have high organizational commitment care about the fate of their organization, are willing to go "above and beyond" for the sake of the organization, and feel a sense of attachment to the organization (Mowday, Steers, & Porter, 1979). Commitment may buffer against stress because it helps people attach meaning to their work and connects people more closely to their social networks at work. Begley and Czajka (1993) studied commitment and job satisfaction, intentions to quit, and health during a major work consolidation and downsizing effort at one organization. They found that the stress of that event increased the job displeasure of those who were already low in organizational commitment.

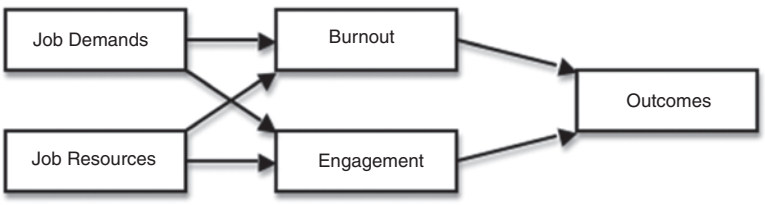


Figure 9.1 *Job Demands–Resources model.*

Overall, findings suggest that health and job satisfaction are related. In their meta-analysis of 485 studies, Faragher, Cass, and Cooper (2005) found that lower job satisfaction was associated with poorer mental and physical health. The strongest correlations were found between job satisfaction and mental health indicators such as depression, self-esteem, and anxiety. Perhaps most interesting is Fischer and Sousa-Poza's (2009) finding that higher job satisfaction was associated with higher satisfaction with one's health, suggesting a spillover effect between job satisfaction and health.

### *Summary of Research on Correlates of Job Satisfaction*

Job satisfaction is positively related to work performance, but job satisfaction also relates to many other personal and work-related outcomes, such as health, life satisfaction, and intentions to stay in the job. As with job performance, the magnitude of the relations between job satisfaction and these other outcomes has typically been small to moderate. However, one must consider that the outcomes are complex and influenced by a number of factors. For example, whether people perform well in their jobs depends not only on job satisfaction, but also on their ability, motivation, and the organizational context. Another potential explanation for small correlations is that the distribution of job satisfaction is negatively skewed, which means that people tend to be satisfied with their jobs. People are not randomly assigned to their jobs; instead, we actively seek work environments that are satisfying. This also means that correlations between a skewed distribution of job satisfaction and other criteria will be attenuated. For these reasons, the small-to-moderate correlations found between job satisfaction and outcomes are fairly impressive, and concern about job satisfaction is justifiable from both the individual and organizational perspective (Spector, 1997).

## ANTECEDENTS OF JOB SATISFACTION: THEORY AND RESEARCH

This section of the chapter focuses on theories and research about how job attitudes are formed and about commonly studied antecedents of job satisfaction. There are more job attitude theories than is possible to discuss in one chapter. Instead of providing a comprehensive list of theories, we offer examples of theories and research that exemplify the ideas that job satisfaction is caused by (a) one's comparisons to prior job experiences, (b) the social context of work, (c) job characteristics, (d) job stressors, (e) personal dispositions, and (f) person–environment fit. For overviews of additional theories not covered here, see Hulin and Judge (2003).

### *The Cognitive Judgment Approach*

In general, the cognitive judgment approach argues that job satisfaction depends on an evaluation of the difference between one's expectations and what one actually receives. According to Thibaut and Kelley (1967), people evaluate their current role based on comparisons with their past experience in and observations of others in similar roles. A comparison level (CL) is developed and used as a standard against which satisfaction with the current role is evaluated. In essence, the CL is a baseline indicator of what the individual feels that he or she deserves. Roles that exceed the CL will be satisfying, and roles that are judged to be lower than the CL will be dissatisfying.

Thibaut and Kelley also introduced the Comparison Level for Alternatives ($CL_{ALT}$) as another standard for comparison. The $CL_{ALT}$ represents the outcomes that an individual

perceives to be associated with the best possible alternative to the current role. Thus, the CL determines satisfaction with the current role and the $CL_{ALT}$ determines how committed one feels in the current role. As outcomes in the current role drop relative to the $CL_{ALT}$, the person will increasingly feel the desire to leave the current role.

Although Thibaut and Kelly's model has been criticized for ignoring the affective or emotional part of job satisfaction, instead focusing on the cognitive components (Weiss & Cropanzano, 1996), this model adequately accounts for how alternative job opportunities impact job satisfaction and turnover, and helps to explain "job hopping" (Hulin, 1991). As individuals change jobs, they gain more information about alternatives. Thus, they may be satisfied in each job but change jobs frequently because of their $CL_{ALT}$.

### Social Information Processing Theory

Social information processing theory (Salancik & Pfeffer, 1978) complements, rather than competes with, the cognitive judgment approach by suggesting that social context influences job attitude formation (Weiss & Cropanzano, 1996). According to Salancik and Pfeffer (1978), others' evaluations of the job influence our own evaluations, especially when the job is complex or work events are ambiguous. For example, continuous statements from coworkers about how the job is such a bad job can influence one's own perception of the job. There are two primary ways in which the social context influences attitudes. First, the social context helps people form their attitudes. It provides "… guides to socially acceptable beliefs, attitudes and needs, and acceptable reasons for actions" (pp. 226–227). Second, the social context helps people focus attention on attitude-relevant information, "… making that information more salient, and provides expectations concerning individual behavior and the logical consequences of such behavior" (pp. 226–227).

### The Job Characteristics Approach

The main idea underlying the job characteristics approach is that aspects of the work environment impact work outcomes, such as job satisfaction. This approach offers specific ways in which jobs can be redesigned to be more satisfying. The job characteristics model (Hackman & Oldham, 1976) posits that "… an individual experiences positive affect to the extent that he *learns* (knowledge of results) that he *personally* (experienced responsibility) has performed well on a task that he *cares about* (experienced meaningfulness)" (pp. 255–256).

According to Hackman and Oldham (1976), there are five core job dimensions. They are skill variety (i.e., do job activities require multiple skills?), task identity (i.e., do job activities require the completion of a "whole" piece of work?), task significance (i.e., does the work have an influence on others?), autonomy (i.e., does the job allow independence of thought in determining the way work is completed?), and feedback (i.e., does the work itself provide performance feedback?). The core job dimensions influence three critical psychological states. Specifically, the dimensions of skill variety, task identity, and task significance influence the degree to which one experiences the job as *meaningful*. The autonomy dimension influences the degree to which one feels *personally responsible* for work that is produced. And the dimension of feedback influences the extent to which one understands, regularly, *how effectively* one is performing. In turn, how meaningful, personally responsible, and effective one feels on the job influences motivation, performance, withdrawal behaviors, and job satisfaction. The relation between the five core job dimensions and personal and work outcomes is affected by individual differences in

growth need strength. Growth need strength is the extent to which one needs personal growth and development. Positive outcomes are expected when people high in growth need strength are in jobs designed to be high in core job dimensions. However, low growth need strength individuals respond poorly to enriched jobs. The job characteristics model has been extensively studied. Meta-analyses (e.g., Fried & Ferris, 1987; Loher, Noe, Moeller, & Fitzgerald, 1985; Roberts & Glick, 1981; Spector, 1985b) have found that there is a moderate relation between job characteristics and job satisfaction (e.g., $r = 0.29$) and as predicted, support has been found for growth need strength as a moderator.

### *Work and Role Stressors*

A number of other characteristics of the work environment, generally called workplace and work-role stressors, have been shown to influence job satisfaction (e.g., Fairbrother & Warn, 2003). For example, jobs can be stressful due to poor physical conditions, such as high levels of noise, lack of privacy, and extreme temperatures. Role stressors include role ambiguity (i.e., a lack of clear understanding of role expectations), role overload (i.e., having too much work to do or having overly difficult tasks), and role conflict (i.e., having incompatible role expectations). Other stressors, including underutilization of skills and lack of career development, have also been examined.

According to job stress models (e.g., see Kahn & Byosiere, 1992), job stressors lead to short-term (e.g., job dissatisfaction and boredom) and long-term (e.g., poor physical and psychological health) consequences, typically called strains. The job stressor–strain relationship can be buffered by coping mechanisms, such as positive self-care (e.g., exercise) and social support (i.e., providing empathy or tangible help with stressors). Feeling a sense of control over desired outcomes is also an important buffer to the stressor–strain relation. Studies tend to support the basic idea that stressors are associated with experienced strain. For example, Yousef (2002) found that role overload-quantitative (i.e., having too much work to do) and role overload-qualitative (i.e., having overly difficult tasks) correlated negatively with job satisfaction ($r = -0.17$ and $r = -0.31$, respectively). Yousef also found that an important stressor that related to job satisfaction was lack of career development available in the organization ($r = -0.45$).

Social support has been associated with greater job satisfaction (e.g., Searle, Bright, & Bochner, 2001; van Emmerik, 2002), but its role in buffering the effects of stressors has received only mixed support (e.g., see Kaufmann & Beehr, 1986; van Emmerik, 2002). In fact, in Kaufmann and Beehr's (1986) study, higher stressor–dissatisfaction correlations were found for those with greater social support. The authors argue that it may be that people seek social support when they are experiencing high levels of stressors and strains. Searle et al. (2001) found that how much and what type of social support mattered. People benefited the most from social support when it met their wants and needs. van Emmerik (2002) found that social support and practical assistance from supervisors and colleagues buffered the effects of stressors on job dissatisfaction, but social and practical support from home did not.

Perceived organizational support, the extent to which employees feel that their contributions are valued and that the organization cares about them, is another potential buffer of the stressor–strain relation. For example, Stamper and Johlke (2003) found lower correlations between role ambiguity and job satisfaction for individuals who perceived high organizational support. They stated that "Firms that send signals indicating that they value employee contributions and care about their well-being not only reduce the amount of role stress, but also help workers cope with the expected role stress associated with job tasks" (p. 581).

### The Dispositional Approach

The dispositional approach maintains that job satisfaction is due to general tendencies to experience positive or negative affect. This approach suggests that certain individuals have dispositions that influence them toward feeling positive generally in their lives and includes being positive about their jobs. Moreover, these general tendencies are assumed to be independent of positive or negative situational characteristics (Weiss & Cropanzano, 1996). Staw, Bell, and Clausen (1986) found that affective dispositions collected during early adolescence correlated 0.37 with overall job satisfaction almost 50 years later.

Most studies that have examined dispositions have focused mainly on the traits of negative affectivity (NA), positive affectivity (PA), and core self-evaluations (CSE) as predictors of job satisfaction. NA is the tendency to experience negative mood states such as distress, hostility, and depression, and PA is the tendency to experience positive mood states such as being cheerful, confident, and active. It is well documented that individual differences in NA and PA relate to job satisfaction (e.g., Cropanzano, James, & Konovsky, 1993; Duffy, Ganster, & Shaw, 1998; Ilies & Judge, 2002; Moè, Pazzaglia, & Ronconi, 2009). Affective events theory (Weiss & Cropanzano, 1996) focuses specifically on the critical function of mood as antecedents of job satisfaction. Job events create moods that lead to job attitudes. Dispositions influence job satisfaction through mood at work and also through affecting how one interprets objective circumstances of the job (e.g., see Carlson, Kacmar, Zivnuska, Ferguson, & Whitten, 2011).

CSE is a broad trait that focuses on how people appraise their self-worth. A person high in CSE has a high self-esteem, believes that one is capable and competent, and has a sense that life will turn out well for oneself (Judge, 2009). Not surprisingly, research is mounting that suggests that high CSE is associated with a number of positive life and work outcomes, including higher job satisfaction (Judge, Ilies, & Zhang, 2011; Kammeyer-Mueller, Judge, & Scott, 2009).

### Person–Environment Fit

We have discussed situational variables that influence job satisfaction, such as job characteristics and the social context of work. We have also discussed personal variables, such as CSE, which influence job satisfaction. Rather than searching for specific environmental or personality characteristics that contribute to job satisfaction, the person–environment fit (P–E fit) approach posits that job satisfaction is influenced by the extent to which good compatibility exists between people and their work environments. Thus, situational variables interact with personal variables to produce job satisfaction. Two popular P–E fit theories are the theory of work adjustment (TWA; Dawis, 2005) and Holland's RIASEC theory (see Holland, Fritzsche, & Powell, 1994; Holland, Powell, & Fritzsche, 1994; Spokane & Cruza-Guet, 2005).

According to TWA, satisfaction is influenced by the fit between the individual's needs and the reinforcers provided by the work environment. In addition, the fit between the ability of the individual and the abilities required by the occupation influences how satisfied the organization is with the individual. Satisfaction occurs when organizations meet individuals' needs and when individuals meet organizations' needs (e.g., see Breeden, 1993; Lofquist & Dawis, 1984).

According to Holland's RIASEC theory, people seek environments that match their personality, and congruence between people and environments is expected to lead to positive outcomes, such as achievement and satisfaction (Holland, 1997). Thus, people

will view their environments as satisfying when their personality matches the environment in which they work.

Kristof (1996) argued that vocational fit theories, such as the TWA and Holland's RIASEC theory, focus on fit in the broadest level of the work environment, and thus, may best predict vocational choice. However, she argued that fit in specific organizations is generally better predicted by person–organization fit (P–O fit). Her model of P–O fit suggests that (a) job satisfaction will result when people bring values, goals, and personality that are similar to those espoused by the organization, and (b) good job performance will result when people bring knowledge, skills, and abilities that are not already available, but needed, at the organization. Thus, supplementary fit (similarity to others) is important in predicting job attitudes, whereas complementary fit (adding what is missing) is important in predicting job performance. People who are high on both types of fit are assumed to have positive work attitudes and to stay with an organization longer.

### *An Integrated Model of Job Satisfaction*

Brief (1998) and Brief, Butcher, and Roberson (1995) offered a model that integrates research on the situational and dispositional influences on job satisfaction with some of the ideas about how person–environment fit predicts job satisfaction. A key aspect of the theory is the central role that subjective interpretation plays in forming job satisfaction. According to Folger (as cited by Organ, 1988), job satisfaction is "inherently referential." Individuals will be dissatisfied if actual outcomes differ from thoughts about "what might have been," particularly if unfair treatment has caused the discrepancy. As reviewed in this section, salient referent cognitions can be based on personality, comparisons to prior job experiences, perceived alternatives, or relevant others' perceptions.

## RESEARCH ON THE JOB SATISFACTION OF PEOPLE WITH DISABILITIES

The theory and research cited thus far describes the antecedents and consequences of job satisfaction in general. However, the research described has not focused specifically on the special challenges faced by people with disabilities. This section reviews empirical research examining the job satisfaction of people with disabilities. Specifically, researchers have compared the job satisfaction of people with disabilities to that of people without disabilities, and they have examined the type of work that is satisfying for workers with a disability and the challenges that people with disabilities face in finding satisfying work.

### *Job Satisfaction Levels of People With Disabilities*

McAfee and McNaughton (1997) compared the job satisfaction of people with disabilities to that of people without disabilities, and found no difference. Specifically, they state that "the level of job satisfaction of competitively employed individuals with disabilities does not differ a great deal from that of non-disabled peers" (p. 140). However, they point out that tenure may play an important role in understanding the job satisfaction of workers with disabilities. Some workers with disabilities report high job satisfaction when they first start a job due to the positive feelings of being offered any job, not necessarily the most satisfying job. In support of this idea, Perry, Hendricks, and Broadbent (2000) reported that those with a disability who were interviewing for

jobs were significantly more likely to accept a job than those without a disability. They speculated that this may be partly due to the perception by those with a disability that they will have less opportunity and are, therefore, more willing to settle. Workers with disabilities often have a long, difficult road to travel when searching for a position. McAfee and McNaughton (1997) postulate that the job satisfaction reported by workers with disabilities may be more indicative of the path that was taken to land the job, rather than the characteristics of the job itself.

### *Type of Work and Job Satisfaction*

Workers with a disability are unique in that they are more likely to hold nonstandard work roles, such as contingent and part-time employment (Schur, 2003; Pagán, 2007). Workers with a disabiliy are also more likely to be self-employed (Arnold & Seekins, 1994; Pagán, 2009). It may be that workers with a disability seek alternatives to full-time employment to achieve a better balance between work life and the demands that accompany disability status. Options such as part-time work and self-employment provide more flexibility, allowing workers with a disability to better cope with health and personal concerns (Schur, 2003). In addition, nonstandard work may provide a path for reintegration into the labor market for workers who have become disabled (Arnold & Seekins, 2002). Part-time employment is important not only for the increase in flexibility it provides, but also because employment aids in overcoming the social isolation that often accompanies disability status. Schur (2003) found that many workers with a disability reported "socializing" or "getting out of the house and meeting new people" (p. 618) as their most valued aspect of working.

The benefits of nonstandard work for workers with a disability are evident in the relationship between part-time work and self-employment and workers with a disability's view of their jobs. Research suggests that nonstandard work can positively impact workers with a disability's satisfaction with their jobs. Pagán (2009), for example, found that self-employed workers with a disability were more satisfied with their working conditions than workers with a disability who worked as more traditional full-time employees. Similarly, Pagán (2011) found that self-employment was associated with high overall job satisfaction levels among older workers with a disability. Moreover, workers with a disability in full-time jobs report lower job satisfaction than their nondisabled counterparts, whereas workers with a disability working part-time reported equally high levels of job satisfaction as workers without a disability.

### *Challenges to Job Satisfaction for People With Disabilities*

People with disabilities face unique challenges in fitting in an organization, often have token status, and face issues with requesting and receiving accommodation for their disabilities. First, feeling accepted in one's work organization is important for all employees, but people with disabilities face special challenges in achieving acceptance by coworkers and supervisors (Cohen & Avanzino, 2010). Exclusion or feelings of alienation can serve as a barrier to integration into an organization's culture, whether or not it is intentional or unintentional, and can lead to decreased work satisfaction and lower commitment to the organization (McLaughlin, Bell, & Stringer, 2012).

The barriers to inclusion, acceptance, and socialization may come in the form of stereotypes, biases, and feelings of uneasiness (Cohen & Avanzino, 2010). Employers may view workers with physical disabilities as lacking the abilities to perform. Moreover,

employees with disabilities report that coworkers exclude them from social events and "treat them as if they are children."

In a study of workers with a disability in a nursing setting, Matt (2008) found hat peer acceptance was critical and that social support played a significant role in the workplace integration of people with disabilities. Ultimately, acceptance and social support by coworkers was related to job satisfaction. A barrier to the successful integration of workers with disabilities was miscommunications between workers with and without disabilities. To overcome this barrier, workers with a disability may require a wider communication repertoire to avoid frustration, error, and lower job satisfaction.

Interestingly, Matt (2008) also suggested that, in addition to the barriers of acceptance and socialization that can originate from others, workers with disabilities themselves may also create barriers to organizational integration. Specifically, it can be a self-fulfilling prophecy if workers with disabilities harbor negative feelings about being disabled or perceive themselves to be viewed negatively by others.

McAfee and McNaughton (1997) examined how education and prior social interactions shape the job satisfaction of workers with disabilities. They found that people with disabilities who received their education in integrated settings, as opposed to separate, special classes, were more likely to report higher levels of job satisfaction. These authors speculate that the social interactions that the individuals who attended integrated classroom settings may have "enhanced their ability to fit into the workplace and derive satiation from work" (p. 141). This has implications for those with disabilities who have not yet entered the workforce. McAfee and McNaughton advocate early transition planning so that individuals with disabilities will have the social tools necessary to feel comfortable and fit in organizations. Though more research would shed light on the factors that impede or facilitate successful integration, it is clear that feelings of inclusion are related positively to job satisfaction.

Second, people with disabilities are likely to have token status in organizations. Tokenism occurs when there is a small representation of a particular minority group in the workplace that makes the individual's minority group identity more salient and leads people to view the individual as a representative of their entire minority group (Kanter, 1977; Enchautegui-de-Jesus, Hughes, Johnston, & Joo Oh, 2006). Having token status has been found to cause strain for employees, leading to negative impacts on performance and well-being (Kanter, 1977; Cohen & Swim, 1995; Braboy Jackson, Thoits, & Taylor, 1995). Most of the previous literature has focused on workers belonging to racial and ethnic minority groups and female workers, but many workers with a disability have token status in their organizations. The effects of that status on workers with a disability and the subsequent effect it has on job satisfaction should be investigated.

Third, people with disabilities face challenges associated with receipt of accommodation for their disabilities. The Americans with Disabilities Act (ADA) of 1990 requires employers to provide reasonable accommodations to qualified individuals with disabilities. According to the U.S. Department of Labor, "A reasonable accommodation is a modification to a job, work environment or the way work is performed that allows an individual with a disability to apply for a job, perform the essential functions of the job, and enjoy equal access to benefits available to other individuals in the workplace." Typically, accommodations cost less than $500 and many workers with disabilities do not need any accommodation. Yet, research shows that workers who do need accommodation often do not receive them. Sometimes, workers with disabilities report that they do not want to disclose their disability to their employer. Other times, workers with disabilities are unaware of their rights to receive accommodation. This is a problem, as

providing reasonable accommodation has been linked to employee retention and career development (Dong, 2011).

Whether or not the disability is concealable may impact the receipt of accommodations. Having a disability can be a social stigma in the workplace (McLaughlin et al., 2012), bringing strong social disapproval to those with disabilities. Thus, if the disability is concealable, one might try to conceal it to avoid social rejection. Individuals with concealable stigmas bypass much of the discrimination faced by other stigmatized individuals (Jones et al., 1984). However, individuals with concealable stigmas have to make disclosure decisions, may feel detached from their true identity, and may be isolated from others with a similar stigma. All of these factors lead to emotional stress for the individual who is concealing (Corrigan & Matthews, 2003; Quinn & Chaudoir, 2009; Pachankis, 2007; Ragins, Singh, & Cornwell, 2007). A potential consequence of concealing for individuals with disabilities is that they cannot ask for accommodation and must try to "get by" without it. Dong (2011) found that many employees in this situation often do not seek accommodations until their job satisfaction and job performance are in jeopardy.

There are some individual differences that relate to accommodation-seeking behavior and receipt of accommodations among workers with disabilities. In general, younger workers are more likely to seek accommodations than older workers (Dong, 2011). This may be a generational effect, as the ADA has only been in effect since 1990. Dong also found that those who experienced a younger onset of a disability needed fewer accommodations than those with later-onset disabilities. For example, older-onset, hearing-impaired individuals were less likely to use sign language than those with younger-onset hearing issues. Another important individual difference was education level. Specifically, those with higher levels of education received more accommodations than those with less education even though education was not a significant indicator of asking for accommodation or the need for accommodations. Finally, type of disability was related to receipt of accommodations. Those with mental disabilities were found to receive fewer accommodations than other types of limitations. Employees with cancer received more accommodations that those who were HIV positive.

Clearly, negative stigmas are associated with some disabilities, such as HIV positive and mental disabilities. Moreover, whether or not the disability is perceived to be self-inflicted impacts how the individual is accommodated and socialized into the organization, and whether or not they seek accommodations. For example, employees with cancer often have many medical appointments that will require them to miss work. Employees who are HIV positive may also be required to attend medical appointments but the stigma associated with this disability may lead employers to be less inclined to accommodate. McMahon, West, Mansouri, and Belongia (2005) found that those with diabetes were more likely to experience discrimination in the form of discharge, discipline, and suspension, and they were less likely to be hired, accommodated, and receive benefits than employees with other disabilities. Similar experiences can be expected for older people with disabilities, ethnic minorities with disabilities, and employees with a disability in small organizations in the southern United States.

### Practice Recommendations

Despite the limited research on job satisfaction of people with disabilities, the issue will undoubtedly arise when counseling the adult workforce. Throughout this chapter, we attempt to review relevant theories and research. Our aim is to aid counselors in

conceptualizing the issues that clients may have with job dissatisfaction, and then help them to improve their feelings of satisfaction. The following recommendations provide guidance in this regard.

1. *Inform clients that finding satisfying work is important and obtainable.* Not only is job satisfaction an important end goal in and of itself, but research suggests that job satisfaction is also associated with a variety of affective, behavioral, and health outcomes. For these reasons, the broadest implication of job satisfaction research is that counselors *should* strive to help individuals with disabilities achieve satisfying careers. Empirical evidence does suggest that there is a grain of truth in commonly held beliefs that individuals who are satisfied at work also tend to lead happier and healthier lives. Research also suggests that many individuals with disabilities have been able to find satisfying work. Thus, counselors working with job-dissatisfied clients need to assess the particular work environment, person, and person–environment fit factors that may be contributing to each client's dissatisfaction.
2. *Explore traditional and nontraditional work arrangements.* Research suggests that many people with disabilities have found satisfying careers as self-employed or part-time employees. Explore nontraditional options with clients but do not forget that it may be that people with disabilities have chosen alternate routes due to poor treatment or lack of appropriate accommodations in traditional full-time roles in organizations. Learn your client's individual needs and desires, as there are as many individual differences among people with disabilities as there are in people without disabilities. For those who desire traditional full-time work, counselors can help equip clients with disabilities with the knowledge and skill to find disability-friendly organizations and to stand up for their rights in less friendly organizations.
3. *Educate clients about their rights to accommodations.* Rehabilitation counselors can help clients determine whether or not they need accommodations, and if so provide training to increase knowledge of their rights through the ADA, as well as increasing their confidence to request accommodations (Dong, 2011). As reviewed in this chapter, job characteristics (e.g., amount of autonomy) and job stressors (e.g., role ambiguity) can be important contributors to job satisfaction or dissatisfaction. For people with disabilities, getting their foot in the door, combating the social stigma associated with disability, and seeking accommodations to "equal the playing field" add unique challenges. When workers with a disability are educated about their rights and options, the chances of finding satisfying work is more likely.
4. *Assess the clients' work situation and individual needs to determine the next steps.* Care should be taken to advise clients on how to determine whether job redesign is likely (or possible) within their current job context, whether coping strategies can be used to buffer the effects of job stressors, or whether and how they should seek a more enriching job. Exploring the root of workplace dissatisfaction will be necessary to determine the next steps. Dissatisfaction may be due to the work itself, coworkers, personal factors, environmental factors, or a mismatch between the person and the environment.

In conclusion, individuals with disabilities have traditionally been overlooked as viable contributors to the workplace. With the passage of the Americans with Disabilities Act 20 years ago, there is a greater awareness of the biases and barriers that people with disabilities face. Rehabilitation counselors have the enviable job of helping individuals overcome barriers so that more people with disabilities might enjoy satisfying work—which leads to a host of positive outcomes—improving work lives, family life, and well-being. Now, that is satisfying work!

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# *Chapter 10: Fundamentals of Impression Management: Applications to the Employment of Individuals With Disabilities*

*QIAN WANG, DAVID R. STRAUSER, FONG CHAN, AND MING-YI WU*

***After reading this chapter, you should be able to:***

1. Identify the key components and factors related to impression management.
2. Apply impression management strategies to enhance individuals with disabilities' overall impression.
3. Apply impression management strategies to potentially enhance job interview outcomes for individuals with disabilities.

The primary goal of vocational rehabilitation is to assist people with disabilities obtain and retain employment (Saunders, 2005). Considerable efforts have been devoted to helping people with disabilities develop specific employability skills and, to a lesser extent, general employability skills. However, little effort has been directed toward helping people with disabilities develop job-acquiring skills (Chan et al., 1997; Mozingo, Ackley, & Bailey, 1994). The lack of employment research to systematically investigate issues related to disability disclosure and job-interviewing skills in any detail is disconcerting because employers commonly require applicant interviews even for entry-level positions (Mozingo et al., 1994). Conspicuously, research in personnel psychology has indicated that interviewer evaluations of applicants' suitability or the likelihood of organizational pursuit (hireability) are less influenced by academic credentials and work skill factors than by their subjective impressions of applicants' interview performance (Dipboye, 1992; Stevens & Kristof, 1995). The relative effectiveness of several self-presentation and

impression-management tactics in job interviews is well documented (c.f. Stevens & Kristof, 1995). Research on job interviews with people without disabilities could provide a foundation for studying the effect of job-irrelevant characteristics (e.g., disability), the effect of impression management tactics, and the interaction effect of disability status and impression management tactics on interviewers' subjective impressions of job applicants with disabilities and interviewers' evaluations of suitability or probability for organizational pursuits.

Because employers may be prone to have negative bias against applicants with disabilities, it is important for rehabilitation professionals to help people with disabilities to prepare for employment interviews, especially for jobs with career advancement potential. People with disabilities must be cognizant of psychological constructs that are frequently assessed in employment interviews, the interaction effect of job-irrelevant characteristics (e.g., race, gender, and disability) on interviewers' behavior, and impression management tactics that may be useful to change employers' misperceptions and stereotypes about people with disabilities in terms of performance concerns and social problems they may create in the workplace.

## BACKGROUND

The origin of impression management (IM) goes back thousands of years when one's survival might have been dependent on what others thought and how an individual was perceived by others. Around the year 1600, William Shakespeare wrote in in his play *As You Like It*: "All the world's a stage, and all the men and women are merely players. They have their exits and entrances, and one man in his time plays many parts." This famous statement has been frequently quoted in books and articles over the centuries and can be directly related to IM. Later, sociologist Erving Goffman contributed to the modern-day scientific study of IM through his dramaturgical model of social interaction (Goffman, 1959). In Goffman's view, the main goal is to construct an identity as "actors" engaging in "performances" in various "settings" before audiences, the impression you create becomes a major part of your identity, and it tells people who you are.

Goffman (1959) points out that the "performances" we put on as "actors" depend upon characteristics of both the situations and the audiences that are present. We attempt to control the images we project upon relevant others, hoping to achieve social, psychological, or material purposes, such as better interpersonal relationships, enhanced self-esteem, or increased benefits at work. Goffman (1959) stated that managing one's impressions influences the construction of one's reality by establishing norms, roles, and behaviors. Individuals feel largely in control of the situation when they are actively directing the tone and flow of social interactions. Even the seemingly innocuous actions might be positioned to project the "actor" in a favorable light.

The definition of IM varies across different contexts, areas of research and application. In the basic sense, IM can be defined as a process by which people attempt to control the impression that others form of them (DuBrin, 2011). During IM, whether conscious or unconscious, enhancing self-identity in many cases is the primary goal and IM techniques are employed to enhance, protect, and adjust one's self-identity. As it applies to work and employment settings, most of the time individuals engage in IM with the goal of having others develop a positive impression or perceive one's self-identity as positive (Bolino & Turnley, 2003; DuBrin, 2011; Leary & Kowalski, 1990). Techniques focused on enhancing and adjusting one's image may have particular relevance to enhancing the employment of people with disabilities because research suggests that employers are likely to hold negative views of individuals with disabilities

and that helping people with disabilities obtain and retain employment is a primary goal of vocational rehabilitation. However, there are some cases where the individual may have a goal of presenting an impression of *strategic incompetence* in an attempt to reduce his or her workload or avoid having to perform an undesirable task (DuBrin, 2011; Schlenker, 1980). This too could be applied to the vocational rehabilitation setting where a counselor may encounter a reluctant client who is projecting a range of reluctance or incompetence due to self-doubt or uncertainty regarding one's ability to meet the demands of vocational rehabilitation and potential employment in a competitive work setting. In this chapter, we are working under the assumption that, in the context of work, employment, and disability, individuals, especially people with disabilities, are attempting to, or it is in their best interest to, convey a positive impression and develop or preserve a positive self-identity as a productive worker to enhance another individual's view and to enhance social and employment options.

## THEORETICAL FOUNDATION: THE CYBERNETIC MODEL

The cybernetic model of IM provides a theoretical framework for understanding how a positive impression of an individual can be formed as the result of an interpersonal exchange with another individual or environment (Bozeman & Kacmar, 1997). In the following section, we provide a brief description of the cybernetic model of IM. For a comprehensive discussion of the cybernetic model, the readers are referred to Bozeman and Kacmar (1997). We will then provide a brief discussion of IM techniques that are currently employed in the employment setting, focusing on how IM is applied and utilized in the job interview and employment acquisition. Applications to people with disabilities are also provided.

According to the cybernetic model, the foundation of IM is *information*, *communication*, and *control* (DuBrin, 2011). Using these three components as a foundation, individuals attempt to manage their impressions and manage their self-identity by utilizing the following four mechanisms: (1) developing goals, (2) receiving feedback, (3) comparing feedback obtained to an established criterion (*comparator*), and (4) determining what can be done to reduce any discrepancy between the feedback obtained and the desired criterion (*effector*). Specifically, when an individual cognitively determines that it is important, or of value to manage an impression, an individual develops a specific *identity goal* and engages in IM techniques to facilitate the perception from others consistent with the established identify goal (DuBrin, 2011; Schlenker, 1980). For example, an individual may have the goal of being perceived as a competent and effective worker. In an attempt to achieve that identity goal, an individual may engage in or utilize specific IM techniques to enhance or manage the impression of others regarding one's desired perception. The individual will then receive and cognitively process *feedback* from the environment to determine if there is any discrepancy between the desired goal and achieved state (*comparator*). Based on the level and type of discrepancy cognitively perceived, the individual engages in activities to alter the output or behavior in effort to achieve the desired goal (*effector*). Applying the cybernetic theory language, the *comparator* is the cognitive process by which the individual's goal and feedback are compared to the established standards either internally or externally operationalized, and the *effector* is the process by which outputs or behaviors can be altered (DuBrin, 2011).

As a result of comparing feedback from the environment and the individual's desired identity goal, three outcomes are possible: (1) *negative discrepancies*, (2) *positive discrepancies*, and (3) *zero discrepancies* (Bozeman & Kacmar, 1997). A negative discrepancy is sensed when the individual does not achieve the desired reference standard

for the desired identity goal. As a result, the individual can either adjust their behavior or choose an alternative IM technique to minimize or eliminate the discrepancy. If the individual's change of behavior or utilization of an alternative IM technique is successful in meeting the desired goal the individual has achieved successful performance and has achieved the desired identity goal. If the modifications and change of technique are unsuccessful, the individual is left with the choice of either reducing the goal to come more in line with actual behaviors and outcomes, change the outcome reference, or abandon the desired goal completely. A positive discrepancy is achieved when the individual exceeds the goal that the individual was attempting to achieve. In achieving a positive discrepancy, the individuals may choose to alter their behavior and reduce their effort in order to become more in line with the desired goal. However, in most cases relating to work and employment, *better-than-goal* performance is viewed as a positive and desired state that the individual will cognitively process as leading to more rewards and opportunities (such as securing employment through a good job interview). Finally, a zero discrepancy indicates that the individual's initial efforts in IM have achieved the desired goal at the appropriate criterion level. No adjustment to behavior or utilization of alternative IM techniques is warranted at that time. It is important to understand that because IM is based on the **p**ersonal × **e**nvironment fit model and the process of IM is dynamic, IM should be viewed as a process versus an outcome or a state (Bozeman & Kacmar, 1997).

Applying the cybernetic model to IM provides a framework for understanding an individual's motivation. When an individual chooses to apply an IM technique to achieve a desired goal, the individual is inherently goal oriented with negative feedback guiding and monitoring subsequent action toward achieving the desired goal (Bozeman & Kacmar, 1997). According to cybernetic theory, goals and efforts that follow are reflected in two principal activities. First, an individual can direct effort toward gaining control of their environment to bring the environment in line with the desired goal (DuBrin, 2011). For example, an individual will analyze the environment and work toward manipulating or enticing the environment into valuing the individual's desired identity goal. If the individual perceives that his or her strength is being trustworthy and credible, the individual may engage in activities to manipulate the environment into valuing being trustworthy and credible. Second, the individual may direct efforts toward establishing congruence between the individual identity goal and demands of the environment (DuBrin, 2011; Morrison & Bies, 1991). For example, if the environment has a preexisting tendency toward valuing trustworthiness and credibility, the individual will be motivated to engage in behaviors that the environment views as being consistent with, or reinforcing, those desired behaviors of trustworthiness and credibility. The primary motivation for engaging in IM is a function of the individual's perceived discrepancies between the desired identity goal and the feedback from the target environment regarding the reference goal. IM takes place in a dynamic, interactive manner with the individual continuously making fine adjustments to establish and maintain congruence between the individual identity goal and the demands of the environment (DuBrin, 2011).

The individual's choice of applying specific IM techniques is based on the feedback from the environment that is filtered through the individual's cognitive schema and associated perceptions. Verbal IM tactics applied in work and employment can be categorized according to content- and relation-oriented approaches (Bozeman & Kacmar, 1997). Content-oriented approaches tend to focus on the individual and involve information that reflects one's qualities and behaviors. Relation-oriented approaches tend to focus more on the target and the relationship between the individual and the target environment. These IM techniques can also be categorized in terms of their identity functions of *enhancement*, *protection*, and *adjustment* (Bozeman & Kacmar, 1997).

Table 10.1 *Strategic Identity Functions and Corresponding Behavior Tactics*

| Strategic Identity Function | Actor (Content-Oriented) | Target (Relation-Oriented) |
|---|---|---|
| Identity adjustment | Self-handicapping<br>Self-deprecation<br>Strategic failure<br>Opposing images | Noncompliance<br>Opposing images<br>Supplication (asking for help) |
| Identity enhancement | Self-promotion<br>Entitlements<br>Enhancements<br>Exemplification<br>False modesty<br>Self-presentation | Ingratiation<br>Opinion conformity<br>Intimation<br>Other-Enhancement<br>Favor doing<br>Pro-social behavior (i.e., helping) |
| Identity protection | Excuses<br>Justifications<br>Self-handicapping<br>Disclaimers<br>Accounts | Apologies<br>Opinion conformity<br>Restitution<br>Ingratiation<br>Favor doing |

Enhancement refers to strategies and behaviors directed toward improving or enhancing the individual's social identity. Protection relates to preventing damage or harm to the individual's social identity and adjustment refers to resolving positive discrepancies between an individual's current or desired social identity. Table 10.1 provides the structure for organizing specific IM techniques along the dimensions of the content- versus relation-oriented approach and whether the specific techniques focus on identity enhancement, protection, or adjustment (Bozeman & Kacmar, 1997). The bolded IM techniques in Table 10.2 have been identified through research as techniques that are commonly used in job interview-related activities and will be reviewed as part of the chapter. Finally, nonverbal behavior is also a critical component related to IM during face-to-face encounters and in many cases may have a stronger impact on achieving the desired identity goal.

Table 10.2 *Self-Promoting Statements for the Job Interview*

| Strategic Identity Function | Actor (Content-Oriented) | Target (Relation-Oriented) |
|---|---|---|
| Identity enhancement | Self-promotion<br>Entitlements<br>Enhancements | Ingratiation<br>Opinion conformity |
| Identity protection | Excuses<br>Justifications | Apologies<br>Opinion conformity |
| Identity adjustment | Self-handicapping<br>Self-deprecation | Noncompliance<br>Supplication (asking for help) |

## IMPRESSION MANAGEMENT TECHNIQUES TYPICALLY USED DURING THE JOB INTERVIEW

The job interview is a natural process where IM techniques will be used by the interviewee. Applicants are actively shaping the images the interviewer forms of them, hoping to leave a more positive impression upon the interviewer and eventually land a good job (Tsai, Chen, & Chiu, 2005). Employing IM techniques to develop positive self-identity may be particularly relevant for individuals with disabilities because research has consistently found that employers have negative preconceived negative stigmas that must be overcome during the employment interview process (Amir, Strauser, & Chan, 2011).

The following IM techniques have been found to be commonly used during the employment interview process (DuBrin, 2011). For the IM techniques that are viewed as positive, brief applications to people with disabilities will be provided. However, there are multiple IM techniques that people engage in that are viewed as negative, potentially risky, and could have an adverse impact on an individual's image. For these techniques, no applications will be provided since their use is not recommended.

### *Assertiveness*

Assertiveness is defined as a form of behavior characterized by a confident declaration or affirmation of a statement without need of proof; this affirms the person's rights or point of view without either aggressively threatening the rights of another (assuming a position of dominance) or submissively permitting another to ignore or deny one's rights or point of view. In relation to IM, assertiveness is the process by which the individual attempts to present oneself as an individual with appropriate skills, talent, and experience (Cialdini, 1989; Schlenker, 1980).

#### Application to the Employment Interview

Many times, the effectiveness in the job interview depends on the individual being assertive by sharing and volunteering information, asking appropriate related questions, complimenting the potential employer and interviewer, and providing opinions when asked. In utilizing assertiveness, the individual attempts to portray himself or herself as a particular person (self-identity) that has the appropriate skill set, talent, and the necessary and required experience for the position. For people with disabilities in the job interview, this technique may be particularly important as people with disabilities do attempt to overcome the inherent negative biases and negative views regarding ability and to develop the ability to meet the productivity requirements that many employers have regarding potential employees with disabilities (Amir, Strauser, & Chan, 2011). Assertiveness can also be used by people with disabilities to highlight their specific skills and abilities in relation to the job and portray themselves as a competent individual who is qualified for the job and is able to manage one's own disability.

### *Self-Promotion*

The goal of self-promotion is to promote one's accomplishments, achievements, contributions, talents, and qualities so favorably that others will view the individual as highly competent (Cialdini, 1989; Giacalone & Rosenfeld, 2001; Godfrey, Jones, & Lord, 1986; Higgins & Judge, 2004; Orpen, 1996; Rudman, 1998; Stevens & Kristof, 1995).

#### Application to the Employment Interview

Self-promotion is a commonly used IM technique utilized in the employment interview to emphasize the skills and abilities of the applicant to the interviewer. Depending on the experience and status of the individual, different aspects may be emphasized. A young inexperienced applicant may emphasize his or her academic performance, field experiences, and ability to learn and acquire new information in a timely manner. Experienced job seekers may emphasize prior accomplishments, past work experience, and ability to work in specific related work settings. Overall, self-promotion is important in all job interviews but may have increased importance for higher-level professional positions. Research has found that the most frequently used self-promoting themes are (1) hardworking and energetic, (2) successful and confident, (3) interpersonally skilled, (4) growth oriented and flexible, (5) goal and result oriented, and (6) an effective leader. Self-promotion is particularly relevant to people with disabilities like assertiveness in that people with disabilities in most cases need to overcome negative bias or perceptions of not being able to meet employment demands that many employers hold. Self-promotion also allows people with disabilities to highlight their strengths, work-related assets, and overall ability to manage disability-related issues and sell themselves as the most qualified candidate for the position.

### *Ingratiation*

The purpose of ingratiation is to get the target to like or be attracted to the individual (DuBrin, 2011).

#### Application to the Employment Interview

During the employment interview, the individual uses ingratiation when complimenting the potential employer, their products or services, and the interviewer in an effort to be liked by the interviewer. Therefore, the primary goal of ingratiation in the employment interview setting is to get the interviewer to like and be attracted to the applicant. Ingratiation is utilized so often in the employment interview setting that an applicant who does not engage in the use of ingratiation may be viewed by the interviewer as lacking appropriate work-related social skills. When applied to people with disabilities, ingratiation is important because many times people with disabilities are viewed as having poor social skills and the utilization of this technique conveys to potential employers that one is aware of social and contextual factors of the work environment.

### *Entitlements and Enhancements*

In the context of IM, entitlement refers to someone's belief that an individual is responsible for events that they may actually have had minimal, if any, involvement. This happens when some interviewees overclaim personal credit for successful events, in order to demonstrate competency. Self-enhancement is a type of motivation that enables individuals to feel good about themselves to maintain self-esteem. This motive becomes especially prominent in situations of threat, failure, or blows to one's self-esteem (Cialdini, 1989; Giacalone & Rosenfeld, 2001; Godfrey et al., 1986; Higgins & Judge, 2004; Orpen, 1996; Rudman, 1998; Stevens & Kristof, 1995).

#### Application to the Employment Interview

During an interview, an individual may attempt to take extra credit for a positive event or outcome although he or she may not have had that much to do with the outcome. This is a high-risk activity that has the potential for serious negative consequences and should be avoided.

### *Basking in Reflected Glory*

A self-serving cognition in which individuals associate themselves with successful others such that another's success becomes their own (Leary & Kowalski, 1990).

#### Application to the Employment Interview

During the employment interview, it has become very common to attempt to enhance one's image by claiming association with highly recognized or prestigious figures on institutions. One reason that this technique is used so often is that in the business world there has been increasing emphasis on being socially connected. A positive outcome of basking in reflected glory is that the individual conducting the interview may view the individual as being highly connected and competent and, as a result, more desirable to the potential employer. However, used too much, the interviewee could be looked at as a name-dropper, which is considered unethical by some. This technique has significant upside for people with disabilities if used correctly. Stressing prior accomplishments and participation in valued training programs or institutions of higher education, community organizations, and clubs are effective ways to reduce the employers' stigma and negative views of disability.

### *Opinion Conformity*

It occurs when the actor adopts and validates the attitudes and beliefs of the target individual. By expressing opinions, attitudes, beliefs, and values that are similar or consistent with those of the interviewer or the organization, the interviewer is striving to make them more likable. According to social psychologists, we like people who are similar to us, so making oneself look, act, or think more like the organization you are seeking employment with, one is likely to be perceived as "fit" for the job (DuBrin, 2011).

#### Application to the Employment Interview

In utilizing opinion conformity to gain favor with the interviewer, the applicant will express opinions, beliefs, or values that they perceive as being consistent with those held by the interviewer. One form of opinion conformity that is commonly used is to indirectly indicate that the applicants' values are a good fit with the hiring organization. An alternative approach related to opinion conformity is to attempt to gain favor or develop a positive self-identity by describing personal experiences that may be similar to those of the interviewer. One significant plus of using opinion conformity in an interview is that many employers attempt to hire individuals who they perceive will fit their organizational culture. Opinion conformity is another strong technique for people with disabilities in that when used correctly it can help strengthen the bond with both the interviewer and the organization by stressing similarities instead of differences.

### Excuses

This is a straightforward IM approach in which the interviewee makes excuses to disclaim one's responsibility for certain negative events (DuBrin, 2011).

#### Application to the Employment Interview

Opposite of self-promotion, an individual uses excuses to protect their self-identity or distance themselves from negative outcomes or behaviors. Excuse making is typically used by an applicant when his or her prior employer or organization was involved in negative behaviors or business activities that have received considerable public or industry attention. Another form of excuse making is when the applicant may deny ever having been involved with the problem behavior or incident in question.

### Justifications

The interviewee accepts responsibility for certain negative events, but explains that the event was not as bad as it seems on the surface, in order to rebuild the projected image (DuBrin, 2011).

#### Application to the Employment Interview

Similar to excuse making, applicants may justify an unfavorable development or involvement with questionable activity when the specific interviewer may have particular knowledge regarding the situation. In employing justification the applicant assumes responsibility for the involvement in the activity or associated negative outcome but attempts to place a positive spin on the event many times, explaining that the event or outcome is not as bad as it seems. In using justification, the applicant many times attempts to convince or develop a connection with the interviewer that they would have acted the same way if placed in a similar situation.

### Apologies

Apologizing is a self-protective technique in which the interviewee accepts responsibility for certain negative events, and validates the impact of the negative events, especially when the negative events are documented and accessible as public records (DuBrin, 2011; Leary & Kowalski, 1990).

#### Application to the Employment Interview

When employing the self-protective IM technique of apologizing, the applicant accepts responsibility for a negative outcome or event and at the same time admits to the negative implications of such a responsibility. Apologies are commonly utilized when the applicant is confronted with a specific negative event or behavior that has been uncovered through a background check or that the employer has become aware of during the application process. Many times, excuse making is combined with apologizing in an effort to improve the applicant's self-identity. When blending excuse making and apologizing, the individual will start out by providing an excuse on why the behavior or

incident occurred, and then apologize for the behavior or outcome, and finally provide reassurance that this type of behavior or event will not happen again.

## NONSPECIFIC IM TECHNIQUES

### *Nonverbal Behavior*

Nonverbal behavior contributes largely to the image the interviewee tries to project during interviews (DuBrin, 2011). Nonverbal behavior is commonly known as *body language*; it is used for expressing emotion such as smiling to show happiness, for conveying attitudes such as knitting brows to show annoyance, for demonstrating personality traits such as hugging to show friendliness, and for supporting verbal communication. Sometimes, nonverbal behavior can be inconsistent with what one says; interviewers may rely on nonverbal behavior to tell what the interviewee is really trying to convey. People with disabilities need to be particularly aware of their nonverbal behavior and make sure that their nonverbal behavior is projecting an image of competence and confidence. It is highly likely that even marginal nonverbal behavior will have a more detrimental impact for people with disabilities when compared to their nondisabled counterparts.

### *Résumé*

Most employers require applicants to submit their résumés, either electronic ones or traditional paper-based ones. The purpose of applicants' submission of their résumés is to get invitations to face-to-face interviews or telephone interviews when geographical distance cannot be conquered (DuBrin, 2011).

### *Physical Appearance and Attractiveness*

Many studies have shown that "what is beautiful is good," being physically attractive increases the chance of being hired, mainly through three effects: (1) a strong effect on perceptions of social competence, social skills, and sexual warmth; (2) a moderate effect on perceptions of intellectual competency, general effectiveness, dominance, and general mental health; and (3) a weak effect on perceptions of integrity and concern for others (DuBrin, 2011). So, the most commonly used tactics to enhance physical appearance are choice of clothing, hairstyle, and grooming (Peluchette, Karl, & Rust, 2006). Research has found that for people with disabilities not only is managing physical appearance important, but many may lack the skills or resources to be effective in this area. Paying particular attention to strengthening this area and providing resources to proper interview attire would appear to be important (Strauser & Berven, 2006).

## SITUATIONAL ATTRIBUTES THAT INFLUENCE THE CHOICE OF IM TACTICS

There are multiple individual and situational factors that directly and indirectly influence the individual's potential choice of which IM technique to use. Below, we briefly discuss the multiple aspects of both individual and situational factors and their potential relation to the choice of IM technique employed.

## Individual Factors

Individual differences are major influences that determine what IM techniques get chosen, when they are utilized during the job seeking or employment environment, and the individual's overall effectiveness in projecting the desired image to the target of choice. Research has suggested that the individual factors of self-monitoring, Machiavellianism, trustworthiness, extroversion, and optimism are individual factors that influence IM. In addition, an individual's gender and cognitive skills have also been linked to choice and effectiveness of IM in job-seeking and employment settings (Bolino & Turnley, 1999; DuBrin, 2011).

### Self-Monitoring/Machiavellianism

An individual's desire to engage in IM is partially based on the individual's tendency to engage in self-monitoring behavior and his or her level of Machiavellianism. Self-monitoring refers to the observation and control of expressive and self-presentational behaviors. Individuals with a strong tendency to self-monitor are alert to environmental and situational cues that guide them in presentation of what they appear to be appropriate behavior in a given situation, even if the choice of behavior is not an appropriate fit with the preferences. Conversely, individuals who have low self-monitoring tendency typically display behaviors that are congruent with their inner feelings and beliefs, even if doing so may be perceived as rude by other individuals.

Machiavellianism can be defined as the extent to which individuals behave manipulatively, hold cynical views of human nature, and have a generally low regard for conventional morality or standards (Christie & Geis, 1970). Research has suggested that individuals who are high Machiavellians tend to be more aggressive in their use of IM, choose techniques that provide more immediate benefit to them, and are more likely to engage in risky and more deceptive forms of impression management. Low Machiavellians tend to emphasize more positive impression management techniques and are more likely to use ingratiation and self-promotion when compared to their high Machiavellian counterparts.

### Trustworthiness

Research has suggested that individuals who are perceived as trustworthy and honest will have an easier time creating a desired impression (Lewicki, McAllister, & Bies, 1998). As a result, trustworthiness is both an individual precursor and a goal related to IM. Research has also found that individuals whose behaviors are consistent with their intentions retain confidential information, have a high level integrity, tell the truth, and admit mistakes are more likely to be viewed as trustworthy (Bolino & Turnley, 2003; Gardner & Martinko, 1988). As a result of being viewed as trustworthy, individuals will have an easier time projecting other desired aspects of one's image (Glaser, 1997; Stewart, 2000). In most work environments, trust takes a long time to build and can be washed away with one dishonest mistake. Individuals who make honest mistakes are more likely to be afforded multiple opportunities before gained trust starts to dissipate.

### Extraversion

Extraversion is one of the five factors of human personality and has been found to contribute to the propensity to utilize IM. Research has found that extraversion is linked to the quantity and intensity of social interactions, the need for social stimulation,

self-confidence, and competition. People with high levels of extraversion tend to be more sociable, assertive, talkative, and active where individuals who are less extroverted tend to be more reserved, timid and quiet. People with higher levels of extroversion are going to have an easier time using IM techniques such as self-promotion, assertiveness, and ingratiation to enhance their image.

#### Optimism/Pessimism

People who have higher levels of optimism have a tendency to believe that outcomes will be positive and tend to possess more positive emotional states, even if the anticipation of a positive outcome may depart from reality. Individuals who are pessimistic have an inherent tendency to be skeptical, anticipate negative outcomes, and are more likely to experience negative emotional states. The link between optimism and IM is that research has found that people who are optimistic believe that they can project their desired image and as a result are more likely to engage in impression management. In contrast, pessimistic individuals are more likely to believe that impression management will have a positive impact and, as a result, are more likely to avoid using IM techniques to achieve their desired goal (DuBrin, 2011; Ilies & Judge, 2003).

#### Gender and Cognitive Functioning

Research related to IM has consistently found that gender and cognitive functioning impact the utilization and choice of IM techniques. Regarding cognitive functioning, effective IM utilization and managing one's impression requires high levels of cognitive or mental ability for three primary reasons. First, to manage one's impression, one has to be able to be perceptive enough to read the feedback about how one is perceived. Second, to effectively project an effective image, the individual must chose an appropriate technique to project the desired image, determine if that image is being achieved, and change strategies if needed. Finally, having good cognitive skills is important for one's ability to determine what specific situations would be advantages to project a good impression (Bozeman & Kacmar, 1997; DuBrin, 2011). Analyzing these three areas may be particularly important for people with disabilities, especially the individuals with cognitive or psychiatric conditions that may impact cognitive or executive functioning.

Research related to gender has indicated that different communication styles and preferences may be related to one's choice of IM technique utilized and not whether or not one chooses to engage in IM. It is widely believed that women have a propensity to engage in more rapport building conversations, compliment coworkers, emphasize politeness, are more conciliatory when discussing differences, and are more passive in larger business-related conversations. In contrast, men are more likely to use verbal communication as a means to display knowledge and skill, be critical of coworkers and work-related situations, are more directive, and discuss their accomplishments and recognitions (Canary & Dindia, 1998; Tannen, 1994; Tannen, 1995). Overall, research has suggested that men are more likely to be aggressive in their choice of IM techniques but that both men and women are just as likely to use positive IM strategies such as ingratiation and self-promotion.

## SITUATIONAL FACTORS

The situation or work environment has been found to be a significant factor that impacts the choice, intensity, and overall effectiveness of IM. In addition, the individual's perception of situational factors interacts with his or her individual factors to determine the

choice and utilization of specific IM techniques. Below, we discuss the situational factors of contextual variables, social network centrality, target characteristics, and work proximity as they apply to IM.

### Contextual Variables

The setting and environment significantly impacts the likelihood of an individual engaging in IM and what specific IM techniques one chooses to use. Specifically, research related to organizational behavior has found the following four contextual factors to be related to IM: (1) power relations in the organization, (2) degree of political and economic power specific organizational subgroups wield, (3) organizational culture (collective vs. competitive), and (4) occupational status (Vigoda-Gadot, & Drory, 2006). The combination of these four contextual factors and specific cultural factors will impact the impression management activity within specific organizations and business environments. For example, if an individual resides in a country or region where being polite is important (American South), or is part of collectivist culture (Asian or Hispanic), one is probably going to be more likely to be polite and chose IM techniques that are consistent with this value.

### Social Network Centrality

The individual's placement within a given social network will contribute to the extent an individual employs impression management activities (Barsness, Diekmann, & Seidel, 2005). If one has access to a large social network and multiple interpersonal connections, they will be more likely to engage in IM activities. One reason is that in larger organizations, using IM to navigate the organizational network is important to obtain and maintain access to important information and resources. Individuals who are placed in the middle of the organizational network have been found to be the most frequent utilizers of IM because they are exposed to both ends of the organizational spectrum. Research regarding organizational placement has found that individuals with a high degree of organizational centrality are not only more likely to be more frequent users of IM, but specifically are more likely to engage in IM techniques that make their immediate managers aware of their specific work-related accomplishments.

### Target Characteristics

In order for IM to be effective, an individual needs to become aware of the characteristics of the target and take those into account when choosing an IM technique. If the target views the utilization of IM as appropriate, the individual will more likely be viewed positively than if the audience has a negative view of IM (Gardner & Martinko, 1998). As previously mentioned, in most employment interview settings, it is expected that individuals will utilize IM to enhance their image and promote the perception of individual and organizational congruence. Research has found that the target's need for approval tends to be an important characteristic that is highly related to effective IM. Specifically, if the target has a high need for approval, then utilizing IM techniques that provide the target with approval will lead to the development of a favorable image. In addition, targets that possess more complex positions or have higher intellectual capacity will more likely be impressed by IM techniques that reflect being thoughtful and fact-filled instead of IM techniques and approaches that lack the necessary depth (DuBrin, 2011).

Finally, communication style congruence between the individual and the target is an important factor that determines the effectiveness of IM. If the target prefers verbal over written communication, then verbal IM techniques will be more effective than applying IM techniques in writing.

### *Proximity to the Work Environment*

With the changing nature of the work environment more people are working in remote locations. This may be particularly advantageous for individuals with disabilities where transportation may be a significant barrier to obtaining and maintaining employment. A consequence of working remotely is that individuals may lack the advantage of regular face-to-face contact with coworkers and supervisors. As a result, their ability to employ IM techniques may be limited (Barsness et al., 2005). However, research has found that individuals who work remotely, or off location, have been found to be more active users of IM than their centrally located counterparts. One theory regarding this finding is that individuals who are working off location are aware of reduced interpersonal interaction and are concerned that supervisors may not be aware of their performance so they chose to employ more IM activities to compensate for the decreased interpersonal interaction (Barness, Diekman, & Seidel, 2005; DuBrin, 2011).

## APPLICATIONS

Given the fundamentals of IM, there are multiple strategies that rehabilitation professionals can employ to enhance the overall images of individuals with disabilities, to enhance interview performance, and finally, to improve job maintenance. Chan, Pruett, Kubota, Lee, and Kwok (2008) conducted an experimental study to examine the effect of IM on job interview outcomes of people with physical disabilities. They found that business students who viewed the videotape of a person with spinal cord injury interviewing for a technical sales job competently using IM tactics to address disability and accommodations and job performance issues were rated higher in terms of general impression, hireability, and suitability for the position than students assigned to view the videotape of the applicant without disabilities interviewing for the same position. They concluded that IM can be used to offset negative perception of employers about the potential of people with physical disabilities as productive workers.

When counseling individuals, it is important to emphasize that building one's identity and managing one's impression well is an important factor in obtaining career and personal success. Whether or not the individual thinks IM is important, or whether they like IM or not, they need to know that they are being judged by the impressions they create. This is especially relevant to people with disabilities, because, if such individuals are capable of delivering positive impressions, they are more likely to be viewed favorably by both individuals in the community and the employment setting. Furthermore, individuals' self-presentation plays a crucial part in creating the social reality in which they are embedded, and the opportunities they are provided with.

All the behaviors an individual engages in either contribute to or detract from his or her image. Therefore, it is important to provide individuals with the skills and resources necessary to manage impressions in their favor. From a practical point of view, individuals take calculated and specific actions or inactions to create an image that will portray them in a positive way. Some motivations behind IM are maximizing rewards, minimizing punishments, gaining power, building self-esteem, and creating

a positive overall personal identity. When creating an image, it is important to build on the individual's personality traits and strengths. Do not try to make someone look like what they are not. Instead, try working to build on the individual's strengths and positive self-beliefs, because this may help with the construction of an image the individual can project with confidence, at the same time without too much concern of a manufactured look.

When applied to the job interview process, there are some practical guidelines to follow. Research has shown that the first few minutes of an interview are crucial to the success of the interview (Buckley & Eder, 1988). For people with disabilities, this is a brief window of opportunity to use IM tactics to discuss their disabilities, how the disability will not affect their job performance, job accommodation needs, and social competency. During employment interviews, candidates are expected to put their best foot forward and actively engage in delivering a positive image. Failing to act in this manner will most likely be viewed as lacking the social skills necessary to meet the demands of workplaces in a connected world. Feedback from employers suggests that it has become common to have individuals show up to an employment interview with inappropriate attire, ill-prepared speech, and weak handshakes. Many employers hold the idea that work attire is not just a reflection of one individual employee, but also a reflection of the organization as a whole. Therefore, wearing appropriate work attire is viewed as a professional conduct, and is highly endorsed by most of the organizations in the world.

During the interview process, it is not only important to impress the interviewer, but also individuals who may be associated with the interviewer, particularly the receptionists, since they are the ones who usually have the first glimpse of the candidates. Many employers have revealed that they consider the way in which the job candidate treats a receptionist as a reflection of how the candidate will treat coworkers in the future. Therefore, it is important for candidates to treat each person at the scene of the interview in a professional and respectful manner. Any negligence of courtesy may backfire, even if the candidate has done a good job in the actual interview. If and when the individual is hired, employing appropriate IM techniques during performance reviews can be helpful, since most salary adjustments and promotion considerations occur during this process. Finally, individuals should also be aware that overtly manipulating one's impressions is likely to backfire in the long run, and contribute to negative perceptions of the employee, despite having initial short-term gains. So, the key to success is managing your impressions in a constructive way, projecting yourself in a positive light, but also being true to who you are.

## CONCLUSIONS

With the primary goal of vocational rehabilitation being to assist people with disabilities obtain and retain employment (Saunders, 2005), considerable efforts have been devoted to helping people with disabilities develop general and specific employability skills. However, helping individuals with disabilities develop job-acquiring skills has not received adequate attention (Chan et al., 1997; Mozingo, Ackley, & Bailey, 1994). Research regarding job interviewing with the nondisabled population and limited research with individuals with disabilities has provided support that impression management plays a critical role in the job interview and overall employment process. This chapter has outlined the importance of impression management in the job interviewing process, provided a theoretical framework for understanding impression management, and discussed the major impression management techniques that can be applied to

job interviewing and employment for people with disabilities. Effectively employing appropriate impression management techniques has direct application and is important in the practice of rehabilitation counseling. The role of impression management in the career development and employment of individuals with disabilities should become a major research focus for vocational rehabilitation.

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# Chapter 11: Vocational Evaluation in Rehabilitation

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***After reading this chapter, you should be able to:***

1. Understand the role of vocational evaluation in the vocational rehabilitation process.
2. Understand the theoretical frameworks for vocational evaluation.
3. Understand the different levels of vocational evaluation.
4. Understand the basic approaches utilized in vocational evaluation.

Vocational evaluation has been part of the vocational rehabilitation process and has been viewed as an important service directed at enhancing the career development and employment of individuals with all types of disability (Ahlers et al., 2003; Andrew, 1981; Chan, Reid et al., 1997; Rubin & Roessler, 2001). In a historic context, vocational evaluation has been viewed as the process of attempting to assess the individual's aptitudes, achievement, intelligence, interests, and behavior in an effort to determine potential employment goals and services needed to achieve desired rehabilitation outcomes (Andrew, 1981). In many environments, vocational evaluators, rehabilitation professionals who specialize in vocational evaluation, are responsible for developing and implementing an evaluation strategy based on the referral questions from the vocational rehabilitation counselor. A long-held view is that upon completion of the vocational evaluation, the vocational rehabilitation counselor should obtain the following information that is relevant in developing an individualized plan of employment: (a) information on the individual's relevant levels of social, educational, psychological, and physiological functioning, (b) an estimate of the individual's potential for behavior change, (c) information regarding learning style, (d) identify specific education and training programs that might increase vocational potential, (e) identify jobs that the individual has the residual

skills to perform without any additional training or skill development, (f) identify potentially feasible jobs for the client with additional training, and (g) identify community and auxiliary supports that can facilitate job acquisition and maintenance. Despite the ambitious expectation regarding the extent and quality of information gathered, it must be kept in mind that like any good medical examination or psychological evaluation, the vocational evaluation is just one source of information that should be used in vocational planning and service provision. Unfortunately, this view has not always been embraced and, on many occasions, information generated from the vocational evaluation processes is viewed as absolutist instead of a time and contextually limited snap shot of the individual. As a result, vocational evaluation is either overly relied upon or completely discarded due to the perception of bias, discrimination, and lack of relevance. The balanced counseling approach to evaluation is the appropriate approach that involves the client in all phases of the evaluation process and is the approach advocated for in this chapter.

Outside of the many benefits of vocational evaluation in assisting rehabilitation professionals in determining the type and intensity of vocational services needed to facilitate career development and employment of individuals with disabilities, one of the primary philosophic underpinnings of vocational evaluation has been the focus on the individual (Boykins & Slinger, 2010). When the primary focus of vocational evaluation is on the individual, the primary goal is to assist the individual in obtaining information to facilitate a better understanding of himself or herself as an individual and his or her place in the world of work. A core value of the counseling-based approach to vocational evaluation is that when individuals take an active role in the evaluation process, they develop an understanding of the information generated and understand how the information can contribute to their career development. Ultimately, this should lead them to taking a more active role in the vocational rehabilitation process (Parker & Schaller, 1994; Rubin & Roessler, 1994; Vash, 1994). However, like many medical and rehabilitation settings, involving the individual in the process is often overlooked or minimized. When this happens, the individual becomes an object of evaluation instead of a participant in the evaluation process. This leads the individual to become an observer and consumer, and not an active participant taking ownership and investing in the evaluation and rehabilitation process. As a result, some rehabilitation professionals have questioned the application of the evaluation results to vocational rehabilitation planning and have argued that evaluation may be disempowering to individuals participating in the rehabilitation process. Therefore, the perception of vocational evaluation is that it has limited utility in facilitating career development and employment for people with severe disabilities (Bond et al., 2001; Cottone, Grelle, & Wilson, 1988).

Another criticism and more significant issue that has been levied against the use of vocational evaluation is that conducting vocational evaluations of individuals with disabilities lacks predictive value in determining viable career and employment options (Szymanski & Parker, 2003). Specifically, researchers and practitioners who work with individuals with severe cognitive and psychiatric disabilities and individuals from diverse cultural backgrounds have been the most vocal in expressing this view of the perceived lack of efficacy regarding the use of traditional vocational evaluation (Larson et al., 2007; Moore, Feist-Price, & Alston, 2002; Murphy & Hagner, 1988). From the perspective of providers who work with people with severe disabilities, their argument appears to have some merit. For many who work with individuals with severe disabilities, the only potential use of any standardized assessment procedure may be, under certain circumstances, to provide relevant documentation in determining eligibility for benefits or services. We would certainly agree that for individuals who have physical, cognitive, and affective symptoms that significantly limit their functioning and ability

to live and work independently without significant ongoing support, traditional vocational evaluation approaches may not be beneficial (Wehman & And, 1988). However, for individuals with mild to moderate disabilities, by far the largest group of individuals with disabilities, information obtained from a vocational evaluation may provide important information to facilitate greater individual understanding, vocational exploration, and to identify potential educational and employment opportunities that were not previously identified.

Cultural and gender limitations due to bias and discrimination have also been noted as limiting factors of vocational evaluation. Cultural limitations, especially those linguistic in nature, limit the utilization and productive nature of any evaluation, including interviews, ecological, and environmental-based evaluation. Cultural and linguistic factors must be considered in all phases of the rehabilitation process. Issues related to lack of representation of diverse groups during test construction and norming historically have been limiting factors negatively impacting the utility of many psychological instruments used in vocational evaluation. However, most evaluation instruments including work samples have attempted to address the limitations associated with gender and cultural limitations or new instruments and procedures have been developed that have taken cultural issues into account (Pruitt, 1986).

Finally, many practitioners and researchers have argued that using vocational evaluation to gauge an individual's ability as it relates to work significantly underestimates the individual's true ability to function from a skill perspective in the workplace. Specifically, providers argue that aptitude and achievement levels are not relevant in determining employment skill in light of rehabilitation approaches such as supported and customized employment that provide wrap-around services to individuals with severe disabilities to facilitate job acquisition and initial job maintenance. Instead, on-the-job training and the place and train approach may be the most relevant model to develop specific employment skills related to specific employment settings. Again, for individuals with severe disabilities, this is certainly true and would appear to be the most effective.

Although these criticisms noted have merit and apply to certain populations served by the rehabilitation community, their criticisms regarding the utility of vocational evaluation may not have broad application for a variety of reasons. First, as previously noted, a majority of individuals with disabilities who are engaged in career development and employment activities do not qualify as having a severe disability. Based on the concept of inclusion and empowerment that provides the basis of a counseling approach to vocational evaluation, individuals should actively be involved in all phases of the evaluation process. The working alliance provides the foundation for the counseling approach to evaluation where the emphasis is on building a solid relationship with the individual, developing realistic and obtainable goals, and determining what tasks lead to goal accomplishment (Strauser, Lustig, & Donnell, 2004). Considerable evidence has found that a well-developed working alliance leads to increased vocational outcomes for individuals with disabilities (Chan, Shaw, McMahon, Koch, & Strauser, 1997; Donnell, Lustig, & Strauser, 2004; Lustig et al., 2003; Strauser et al., 2004). When vocational evaluation is approached with the working alliance as a foundation, the focus should first be directed at developing a relationship with the individual that will contribute to the development of effective goals and tasks. This has particular application to individuals who have disabilities but have the residual ability to obtain and maintain employment with minimal or no on-site support.

Second, research regarding the career development and employment of individuals with disabilities has found that there are three primary factors that limit career development and employment opportunities (Conte, 1983; Strauser, O'Sullivan, &

Wong, 2010; Szymanski & Hershenson, 2005). First, people with disabilities may have limited career exploration experiences and as a result they may have a limited view of the world of work and available employment options (Hagner & Salomone, 1989). Second, people with disabilities may have limited opportunities to develop effective career decision-making abilities. Limited career decision-making abilities may limit the individual's ability to identify and process information that is needed to make decisions and integrate relevant personal and contextual information. Third, people with disabilities may have a negative self-concept regarding career and employment due to negative social attitudes toward individuals with disabilities, stigma, and negative perceptions of employers. As a result, they may have a reduced view of viable career and employment options that may be available. When vocational evaluation is integrated into the vocational counseling process, it can provide the individual with the information necessary to engage in self-exploration regarding personal traits and how he or she relates to work. Information obtained from the vocational evaluation also can provide an individual an opportunity to engage in the career decision-making process with appropriate support and information, and increase self-confidence, concept, and efficacy as it relates to participating in career development and employment activities. When vocational evaluation results are used as part of the vocational counseling process, it provides a framework or structure for examining and expanding career and vocational options.

Third, research over the past 30 to 40 years has consistently shown that the primary reason people with disabilities are separated from gainful employment is for social, interpersonal, and contextual reasons, not skill or abilities (Wright, 1980). Therefore, there may be some logic in the criticism that skill-based vocational evaluation lacks predictive validity in determining if an individual can meet the demands of the work environment. However, evaluation of personality, values, and interests may be particularly relevant in helping an individual facilitate career and vocational development. One common misperception that many practitioners hold is that vocational counseling and evaluation is primarily about determining a match between an individual and a specific position or environment. We do not endorse this view and instead subscribe to the work adjustment approach, which focuses on the dynamic, reciprocal, and continuous interaction between the individual and environment. Applying the principles of work adjustment, one is not only concerned about initial match but also on the individual's ability to adjust to the changing demands of the work environment and their own continued personal development and maturation (Chan, Reid, et al., 1997). Interests, personality, and values are critical components related to an individual's ability to adjust and meet the contextual demands of the work environment. Evaluation of these constructs can provide the individual with critical information that may not be readily available through introspection and self-analysis. In addition, evaluation information can provide reinforcement of previously identified values, interests, and personality traits. Overall, obtaining this information is critical in facilitating effective work adjustment.

Finally, research in the area of personality, values, and interests has provided empirical support that these constructs are significantly more robust predictors of career development and employment than ability for all individuals, including individuals with disabilities (see Chapters 5, 12, and 13). Readers are directed to the related chapters that address personality, values, and interests in this particular book that provide a detailed discussion of the constructs as they relate to career development and employment. When incorporated as part of the vocational evaluation and counseling process, information regarding these constructs should be used to facilitate self-exploration. Later in this chapter we identify strategies that can be used in vocational evaluation and counseling to help individuals explore these constructs.

Having outlined the importance of vocational evaluation, especially utilizing the vocational counseling approach with a focus on establishing a strong working alliance and assessing values, interests, and personality traits, we devote the rest of the chapter to three things. First, we provide a theoretical framework that can be used to guide the information and analysis of information obtained during the evaluation process. Second, we provide a basic overview of the three levels of evaluation as they relate to vocational evaluation and rehabilitation. Finally, we provide a brief overview of the techniques and procedures used in vocational evaluation. Our review is not intended to be comprehensive in nature, as it is only a brief overview. Instead, we assume that the readers will complete a comprehensive evaluation course that provides a detailed overview of basic psychometrics and a detailed discussion of evaluation procedures and tools commonly used in rehabilitation.

## THEORETICAL FRAMEWORKS

Due to the complexity and difficulty of assessing the states and traits associated with the vocational development of individuals with disabilities, vocational evaluators need to have a comprehensive understanding of both the dynamics of the world of work and the impact of disability on work on human behavior (Chan, Reid, et al., 1997). It is imperative for the vocational evaluation professional to have an integrated theoretical framework to guide the evaluation process and organize information regarding the traits and factors associated with work performance. The Minnesota Theory of Work Adjustment is one theory that provides a comprehensive framework for conceptualizing how individual and environmental variables interact to facilitate work-role behavior, task performance, and overall satisfaction.

### *Minnesota Theory of Work Adjustment*

The Minnesota Theory of Work Adjustment (MTWA) was originally developed through the support of a federal-funded rehabilitation research program to address how individuals being evaluated in the vocational rehabilitation program adjusted to work (Lofquist & Dawis, 1969). The MTWA was initially influenced by research related to the job placement of people with physical disabilities. The foundation of the theory is based on person–environment theories emphasizing the correspondence between the individual's work personality and environment leading to job satisfaction and satisfactoriness (Dawis, 2000, 2005; Dawis & Lofquist, 1984). From a theoretical perspective, work adjustment is defined as the process by which the individual achieves and maintains correspondence with the work environment (Lofquist & Dawis, 1969). According to this model, skills and needs are constructs that are used to describe the individual's work personality and the terms reinforcers and skill requirements are used to describe the work environment. The correspondence between the requirements of the work environment and the individual's skills determines satisfactoriness (i.e., the extent to which the individual is capable of performing the specific job). The correspondence between the reinforcers offered by the work environment and the individual's specific needs is what determines the individual's satisfaction with the specific job. Satisfaction and satisfactoriness interact to determine how long the individual will hold a job. This is referred to as tenure and is the principal indicator of work adjustment (Lofquist & Dawis, 1969). Work adjustment is defined as "the continuous and dynamic process by which the individual seeks to achieve and maintain correspondence with the work environment" (Lofquist & Dawis, 1969, p. 46).

To facilitate correspondence with the work environment, the vocational evaluation process should provide information regarding factors related to satisfaction such as obtaining information regarding the individual's needs, values, interests, and personality traits. This information is needed so that the individual is able to identify work environments that match and correspond to these key constructs. This information is also important in providing the individual with a clear understanding of these constructs as they relate to the facilitation of the necessary and continuous adjustment process that is required to achieve tenure. It is important to note that this information cannot only be obtained through standardized instruments but should also be obtained through multidimensional data gathering strategies such as interviews and behavioral observation.

Although assessing the individual's traits mentioned above contribute to an individual's overall satisfaction with the work environment, it is also important to consider factors that contribute to the work environment's satisfaction with the individual. According to the MTWA, this is termed satisfactoriness. Employability and placeability are two factors that contribute to satisfactoriness. Employability can be conceptualized as the individual's ability to meet the specific demands of the work environment. One step in determining employability is to assess specific skills, achievement level, and physical functioning as it relates to meeting the specific skill requirements and demands of particular work environments. As noted, these constructs may have limited predictive value. Instead, assessing employability by using the general work personality, a construct that includes, but is not limited to, behaviors including personal hygiene, attendance, punctuality, safety, consciousness, relationships with coworkers and supervisors, frustration tolerance, and work stamina may provide more robust information (Chan, Reid, et al., 1997). Research has suggested that these factors may be more critical in establishing initial congruence between the individual and the work environment and facilitating continuous adjustment.

The likelihood that the individual is perceived as attractive to a potential work environment, the individual's degree of sophistication in obtaining employment, and the individual's overall ability to actually be hired are referred to as placeability. Placeabilty has little to do with the person's employability or the individual's ability to meet the specific skill and contextual demands of the work environment. However, it is a critical factor in determining if the individual has the skills and resources needed to obtain employment. Job-seeking behaviors are typically evaluated in terms of the individual's resourcefulness, motivation, resume writing skills, ability to employ appropriate impression management techniques, and overall interview behavior. During the vocational evaluation, all job satisfaction and satisfactoriness factors should be considered simultaneously to maximize career and vocational development. Additional factors that impact career development and employment such as legislation, current economic conditions, technology, demand-side factors, and potential job accommodations should also be examined.

## LEVELS OF VOCATIONAL EVALUATION

The primary goal of vocational evaluation is to assess and predict an individual's ability to meet the task and contextual demands of the work environment. Depending on the referral questions of interest, achieving this goal may take several forms that require different amounts of individual and professional time. Discussions regarding the length and levels of client involvement in the evaluation process have long been discussed as it relates to the career and vocational evaluation of individuals with disabilities (Ahlers et al., 2003; Chan, Reid et al., 1997; Stout Vocational Rehabilitation

Institute, 1975). As early as 1975, the Vocational Evaluation and Work Adjustment Association (VEWAA) Task Force (1975) described three levels of evaluation that still have application to today's vocational evaluation process. Based on the VEWAA Task Force, factors to be considered in determining the level of vocational assessment are the purpose, length of contact time with the individual, background data gathered and analyzed, and tools typically used in the evaluation process (IRI, 2003). The following description of the three levels of evaluation provides a basic framework for understanding the evaluation continuum.

### *Level One (Screening)*

Level one evaluation can be conceptualized as basic evaluation or screening and is designed to obtain necessary information in a quick, efficient, reliable, and valid manner. In most cases, screening is the appropriate level of evaluation needed to obtain relevant and appropriate information related to vocational planning. This is especially true, as evaluation should focus less on ability and more on personality, interests, and values. Screening is essentially similar to the career testing completed in high schools across the United States and typically involves one or two interviews with the client and then 2 to 3 hours of testing. The client's vocational needs are derived on the basis of subjective and objective evaluation of work values, interests, personality, and work-related skills and abilities. Interview data regarding work background, education, and residual capacity are used to supplement the evaluation and psychometric data obtained.

### *Level Two (Clinical Case Study)*

Level two evaluation is primarily diagnostic in nature with the goal of providing information that can be used in the rehabilitation plan development. The primary focus is on the individual's past behaviors, education background, and work history with the goal of predicting the individual's current level of functioning. In addition to the methods used in the level one evaluation, this level involves obtaining a detailed psychosocial and vocational history and synthesizing information from other professionals (e.g., medical specialists, social workers, psychologists, and educators). In many cases, a full range of psychometric tests and procedures will be utilized along with several hours of in-depth personal interviews. This level of evaluation usually involves conducting a transferable skills analysis to address job placement and possible vocational training.

### *Level Three (Vocational Evaluation)*

Level three evaluation is the most comprehensive and time consuming and may be the most appropriate for individuals with limited educational and work backgrounds. Consistent with level two, the primary focus is diagnostic in nature with the goal of identifying the individual's vocational assets, limitations, and preferences (Chan, Reid, et al., 1997). This information is then used to facilitate appropriate career development and employment options by developing suggestions for possible job placement, vocational training, and appropriate career goals. This level extends the use of the interviews and psychometric tests to include strategies such as job analysis, work samples, situational evaluation, job tryouts, and actual observation of work behavior in community-based evaluation. Multiple factors should be considered at this level, such as personal

characteristics, local job prospects and labor market information, community resources, family environment, assistive technology, external supports, and access to appropriate medical services. This level of evaluation is the lengthiest and usually requires between 1 and 2 weeks to complete.

With the passage of the Rehabilitation Act Amendments of 1973, state vocational rehabilitation agencies are required to provide services to individuals with severe disabilities. In addition, subsequent amendments have also identified alternative appropriate outcomes such as independent living and supported employment. For individuals with more severe disabilities, alternative approaches that include multiple points of evaluation may be the most appropriate. As with all levels of disability, taking an individualized approach and considering the unique factors associated with each individual is important. For example, when evaluating individuals with severe traumatic brain injury, mental retardation, and psychiatric conditions, it is important to consider how their condition, especially cognitive and psychosocial issue, may be manifested in the work setting (Stergiou-Kita, Dawson, & Rappolt, 2011, 2012). These behaviors may not be exclusively evaluated within the controlled evaluation setting, and it may be important to supplement with information from the larger environmental context. Therefore, expanding evaluation to include a more ecological approach may be the most appropriate. In addition, periodic reevaluation may be appropriate to monitor and document individual progress and gain an understanding of the situational factors that may be impacting the individual's vocational functioning.

## BASIC APPROACHES TO VOCATIONAL EVALUATION

Vocational evaluation is a comprehensive process that focuses on maximizing the work adjustment process. To achieve this goal, the vocational evaluation can employ a variety of systematic approaches that utilize work, real or simulated, as the focal point for evaluation and vocational exploration with the goal of aiding the individual's career and vocational development. Medical, psychological, social, vocational, educational, cultural, and economic information is incorporated into the vocational evaluation process to identify specific goals of the vocational evaluation. The four major approaches that can be used in the vocational evaluation process are the following: (1) standardized testing, (2) job analysis, (3) work samples, and (4) situational evaluation. Each is unique, has assets and limitations, and has a role in measuring vocational behaviors. In addition, using a community-based approach can be used to expand the traditional vocational evaluation process.

### *Standardized Testing*

In vocational evaluation, psychological testing can be used to evaluate behavior, mental abilities, and personal characteristics in order to assist in making judgments, predictions, and decisions about work potential of people with disabilities (Berven, 1979). Psychological testing has several advantages as an assessment tool in rehabilitation. It is brief, quick, and relatively inexpensive and can be used early in the evaluation process to obtain baseline information about the client and to provide direction for subsequent assessment efforts (Berven, 1979; Chan, Reid, et al., 1997). Standardized testing may be particularly appropriate for people with mild and moderate disabilities but less useful for people with severe disabilities because of its strong emphasis on speed, brevity, abstract thinking, and motivation and concentration. Berven (1979)

classified psychometric assessment as composed of four major categories: (1) tests of ability, (2) tests of current skills, (3) vocational inventories, and (4) personality assessment.

### Tests of Ability (or Aptitude Tests)

Aptitude tests can be used to answer the same kinds of questions as work samples, except in paper-and-pencil formats. They are designed to measure a client's potential to master the skills required in vocational training and employment situations. There are two subcategories of aptitude tests: (1) tests of general ability (i.e., intelligence tests) and (2) tests of specific abilities. Intelligence tests are used to assess general learning ability, reasoning, and the ability to adapt to new and different situations. They are most effective in predicting performance in school. In vocational evaluation, intelligence test results can provide information about the client's ability to learn new tasks and adapt to new situations in training or employment settings. The Wechsler Adult Intelligence Scale—Fourth Edition (WAIS–IV) is an individually administered intelligence test and the Beta III is a nonverbal measure of cognitive abilities commonly used in rehabilitation settings. Conversely, tests of specific abilities provide measures of several different abilities. The General Aptitude Test Battery (GATB), which provides assessment of nine separate aptitudes in cognitive, perceptual, and motor areas, is frequently used to answer questions about potential for a range of occupations. The Bennett Mechanical Comprehension Test and the General Clerical Test-Revised are examples of tests of specific aptitudes in the mechanical and clerical areas. The Purdue Pegboard, the Crawford Small Parts Dexterity Test, and the Hand Tool Dexterity Test are examples of tests of motor aptitudes commonly used in vocational evaluation.

### Test of Current Skills (Achievement Tests)

Instead of assessing the potential to learn, the purpose of achievement tests is to assess the effects of past learning (e.g., verbal, numerical, or reading skills). Achievement test results are useful for identifying academic skill deficits that may need to be remediated (e.g., passing the General Educational Development [GED] test) or accommodated prior to academic training or job training (Berven, 1979). The Wide Range Achievement Test 4 (WRAT4), the Adult Basic Learning Examination, Second Edition (ABLE), and the Peabody Individual Achievement Test-Revised-Normative Update are among the most recommended achievement tests.

### Interest Inventories

Interest inventories assess interests and values related to career choice. Typically, interest inventories asked questions about preferences for various job titles, work activities, leisure activities, school subjects, types of people with whom to associate, or for various sources of satisfaction that might be derived from work (Berven, 1979). The assumption is that people whose preferences are consistent with satisfied workers in a particular occupation are more likely to find that occupation satisfying. Many of the interest inventories are developed based on Holland's theory of work preferences and personality type (i.e., realistic, investigative, artistic, social, enterprising, and conventional personality types). The Strong Interest Inventory, Career Assessment Inventory—The Enhanced Version, and Self-Directed Search are examples of interest inventories using Holland's career-choice theory.

#### Personality Assessment

Personality assessment is a very broad category and typically includes assessment of attitudes, needs and values, or temperaments, and more specific attributes, such as anxiety, depression, or motivation. Personality inventories can be administered to answer questions related to psychosocial adjustment factors (e.g., depression) that can affect work performance and potential personality conflicts with coworkers and supervisors. Some of the popular personality inventories used in rehabilitation settings include the 16PF-Fifth Edition, the Minnesota Multiphasic Personality Inventory-2 Restructured Form (MMPI-2-RF), and the Beck Depression Inventory.

### *Job Analysis*

The emphasis of job analysis is on the description of work to be performed (Chan, Reid, et al., 1997). In vocational evaluation, job analyses enable the vocational evaluator to better understand the realistic demands of a job in the workplace. It allows the evaluator to better correlate the vocational evaluation data with the demand of particular occupations in the workplace. It is similar to on-the-job evaluation without the client. By focusing on the nature of the task to be performed, the evaluator can better match the client to appropriate jobs and to determine the job modification and accommodation needs of the client in the real world. In addition, by conducting job analyses of demand occupations in the community, the vocational evaluator will be able to develop work samples and other assessment procedures that are realistic, in demand, and responsive to local employment opportunities.

### *Work Samples*

The work sample is frequently used in traditional vocational evaluation programs. It is a generic term used to describe any sample of work, either real or simulated, irrespective of its purpose or use (Pruitt, 1986). A work sample may involve the simulation or mock-up of a job or an instrument for measuring a work trait. It must be developed based on an analysis of job tasks related to a specific occupation or a cluster of occupations and are designed to assess a representative sample of realistic competitive worker traits/skills related to the specific area of work (Pruitt, 1986). Work samples can be grouped into trait-oriented and work-oriented instruments (Menchetti & Flynn, 1990). Trait-oriented work samples are similar to multiple aptitude batteries in that they are designed to measure a number of traits inherent in a job or a variety of jobs. The major differences between trait-oriented work samples and aptitude tests are that (a) work samples tend to focus on measuring motor responses through the use of complex and more expensive devices, (b) there is less focus on general intellectual and academic abilities in the work samples, and (c) many work samples are designed to be used independently and need not be administered as part of a larger battery (Menchetti & Flynn, 1990). In contrast, work-oriented work samples utilize simulated work such as drill press operation and electronic assembly to measure performance on specific tasks. These work samples have higher face validity since they approximate real work activity. In general, work samples focus on assessing work potential for skilled, semiskilled, and unskilled jobs. Some of the most popular work sample systems include the Valpar's Pro3000 and the McCarron-Dial Evaluation System.

### Situational Assessment

While standardized testing, job analysis, and work samples tend to emphasize specific employability skills, situational assessment focuses on general employability skills and adaptive work behaviors (Neff, 1985). Specific employability skills (e.g., intelligence, aptitudes, achievement, temperament, and physical capacity) are job specific and vary from one job class to another. Behavior and skills specific to employability are important in predicting job performance behavior. Conversely, general employability skills are not job specific. General employability skills, also known as general work personality, are said to be required in every job. Examples of these behaviors include grooming and hygiene, attendance, punctuality, safety consciousness, relationships with coworkers and supervisors, frustration tolerance, work stamina, production rate, and so on. Behavior and skills in general employability are important for predicting job maintenance behavior.

Situational assessment is based on an effort to simulate actual working conditions with an orientation toward work behavior in general. The vocational evaluator uses different means to structure the work environment so that general work behavior can be observed. Information obtained from situational assessment is designed to help the vocational evaluator answer such questions as, "Can the worker work at all? Can they conform to customary work rules? Can they respond appropriately to supervision? Can they produce at an acceptable rate both in terms of quality and quantity?" Situational assessment is the most appropriate method for answering these questions while also assessing potential behavioral problems in the real work environment (Chan, Reid, et al., 1997).

### Ecological Vocational Evaluation

As mentioned, the traditional vocational evaluation approach has many limitations for assessing career choice, job skills, and workplace support needs of people with severe disabilities. It is not useful for matching people to vocational interventions such as supported employment that use a place–train approach. An ecological vocational evaluation can fill the need for assessment in the work environment and the gap in evaluation technology for vocational evaluation in the workplace. An ecological systems approach views behavior from a person–environment interaction perspective involving the individual, family, school, occupation, and society (Davidson & Rappaport, 1983). It has a focus on assets instead of limitations. It also assesses the conditions under which learning is maximized for an individual in a place–train work environment in order to gain knowledge about the person and the work environment in order to improve instruction and ecological supports (Langford & Lawson, 1994). Ecological vocational evaluation incorporates the principles of relativity, diversity, and person–environment fit as an operational philosophy toward persons with severe disabilities. As such, ecological assessment strives to identify the strengths of the individual and base recommendations on the best utilization of assets. The focus of the evaluation is on systems beyond an individual level (such as the family, community, and society) as influencing factors both during and after the evaluation process. It emphasizes that the use of environmental measures such as job analysis, labor market surveys, or on-site assessment increases the chance of work adjustment between a rehabilitation client and the work setting. Ecological vocational evaluation also recognizes the dynamic nature of the workforce and the workplace and advocates that strategies must continuously be adapted to environmental changes and

as a result will require frequent reappraisal. Ecological evaluation relies heavily on environmental measurement such as the social climate or ecology of the workplace (Menchetti & Flynn, 1990). Menchetti and Flynn (1990) delineated several dimensions that should be considered when measuring the ecology of the work environment: (a) the physical ecology, (b) the social ecology, and (c) the organization ecology. Other dimensions, such as transportation requirements, family support, work disincentives (e.g., Supplemental Security Income or Social Security Disability Insurance benefits), and the availability of external incentives (e.g., targeted jobs tax credits), must also be considered. The assessment of these dimensions allows evaluators to determine the adaptability of the environment to meet the needs of the individual. The adaptability of the environment can be compared with the client's abilities to determine the degree of person–environment fit. Decisions about the client's work potential in that environment can be made in terms of accepting the person for employment, accepting the person for employment with support, or recommending a specific alternative (Menchetti & Flynn, 1990).

## CONCLUDING REMARKS

Vocational evaluation historically has played a critical part in the vocational rehabilitation process. Research related to personality, interests, and values lend significant support for the continued need and importance of vocational evaluation in the contemporary practice of vocational rehabilitation. In addition, the counseling approach to vocational evaluation, with an emphasis on building a strong working alliance, provides additional support for incorporating vocational evaluation into vocational rehabilitation service delivery. Vocational evaluation has a strong theoretical framework that guides the evaluation process, and rehabilitation providers have a variety of levels and approaches that can be utilized to facilitate the career development and the employment of individuals with disabilities. Continued training and research related to vocational evaluation would appear to be important and should be a focus for both rehabilitation practitioners and researchers.

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# *Chapter 12: Work Values: Understanding and Assessing Motivation to Work*

*CHRIS MURDOCK AND JAMES ROUNDS*

***After reading this chapter, you should be able to:***

1. Describe the historical development of work values.
2. Understand how work values can be used to guide vocational rehabilitation and improve work adjustment.
3. Select an appropriate measure of work values and incorporate this measure into your professional activities.

Unemployment, underemployment, and unstable employment are common problems for individuals with disabilities (Baldwin & Schumacher, 2002; Kaye, 2009; Schur, 2002; Yelin & Trupin, 2003). Research has also shown that even among those who have received rehabilitation services, a sizeable percentage do not maintain employment beyond (or even through) the relatively brief follow-up period of many outcome studies (Elders, van der Beek, & Burdoff, 2000; International Social Security Association, 2002; Kärrholm, Ekholm, Jackobsson, Ekholm, Bergroth, & Schuldt, 2006; Loisel et al., 2002). While this problem is undoubtedly caused by many factors, it may be due in part to incompleteness in the everyday practice of vocational rehabilitation.

It is no surprise that concerns about work-related abilities often cause clients and their families to seek vocational rehabilitation services. The salience of these concerns may lead rehabilitation professionals to inadvertently overfocus on abilities and underfocus on other critical predictors of career satisfaction and success, such as interests and values. In general, work chosen largely on the basis of abilities (rather than on a more comprehensive formulation of abilities, interests, and values) is less likely to lead to a successful long-term match, and this may be especially true in rehabilitation settings.

Though concerns about abilities may bring clients to seek services, and clients' abilities may be of utmost importance to employers, clients generally do not work in order to showcase their abilities. Indeed, in cases of recently acquired disability, they may actually de-identify with or feel distress about their current abilities.

Interests and values must be incorporated into every evaluation and intervention (Rounds, 1990). While practitioners and researchers are usually at least somewhat aware of the importance of interests, they are often wholly unfamiliar with the value of values. As such, even when there is motivation to incorporate the assessment of values into vocational rehabilitation, there may be insufficient knowledge to successfully do so. Given the high rates of job instability mentioned above, it is important that rehabilitation professionals begin to consider what motivates their clients to work so that they may better understand what might keep their clients employed. To do this, they must understand the role of work values in career development in general as well as in the work lives of their clients in particular, and they must be able to select a measure of work values appropriate for their diverse clientele. Thus, this chapter seeks to do the following:

1. Review the history of the construct of work values
2. Review the relevant characteristics and basic psychometric properties of several popular measures of work values
3. Explore the usefulness of assessing work values in rehabilitation contexts
4. Consider the challenges of assessing work values in rehabilitation contexts

## THE CONSTRUCT

As is well known, individuals differ in their abilities and interests, and these differences influence how well they "fit" in various careers. Because careers tend to attract individuals with specific patterns of abilities and interests, individuals in similar careers often have similar abilities and interests. Given this, one might naturally wonder why people in similar careers *ever* experience different occupational outcomes. In other words, if people in similar careers have roughly equivalent abilities and interests why are not all engineers, teachers, and mechanics equally successful in and satisfied with their work? One important reason for this discrepancy is that, in addition to abilities and interests, individuals also differ in their motivation(s) for working. Thus, equally talented and interested engineers, teachers, and mechanics may each want something very different from their job. When their jobs only satisfy some of their motivations for working, differential outcomes are likely to result.

It likely comes as no surprise that failing to receive valued reinforcement from work can greatly affect job performance and satisfaction. Indeed, numerous studies have shown that concordance (or match) between what is desired and what is received from working can predict a whole host of important vocational outcomes, including job satisfaction (Dawis, 1991; Kristof, 1996), occupational commitment (Cable & DeRue, 2002), career choice (Judge & Bretz, 1992), and career success (Bretz & Judge, 1994). Though it may seem like people are motivated to work (or abstain from work) for very specific or personal reasons, researchers have found that most of the reasons why people work can be adequately captured by only a handful of *work values*, which reflect consensual interpretations of what people tend to want and expect from working (Nord, Brief, Atieh, & Doherty, 1990). The next few paragraphs explore how various researchers arrived at this conclusion as well as provide a brief discussion of the history of work values. Readers seeking a more detailed review are encouraged to refer to Rounds and Jin (2012) or Rounds and Armstrong (2005).

### Needs

As an area of research, work values are actually quite old. In some ways, the modern conceptualization of work values cited above can be seen as the product of a gradual merging of two historical lines of psychological research: that of needs (which began in 1938 with the work of Henry Murray) and that of values (which began in 1928 with the work of Eduardo Spranger; as cited in Rounds & Jin, 2012). Interestingly, early writers disagreed on the difference between needs and values. While a small group saw needs and values as interchangeable (Maslow, 1954, 1959), others saw needs as emerging from biological necessity and values as the culture- and experience-shaped psychological representations of those biologically derived needs (Rokeach, 1973; Super, 1962, 1995). In both camps, though, needs were generally viewed as a basic construct that served to motivate behavior toward ways and means of continually satisfying individual needs. Because work is a prime place for many people to seek satisfaction of their needs, work was a natural locus for *need theories*, which sought to identify the needs that motivated various types of behavior, especially career choice, job satisfaction, and job dissatisfaction. Based largely on Maslow's hierarchy of needs (1954, 1959), need theories were ultimately disfavored in the late 1970s due to limited empirical support (Wahba & Bridwell, 1974; although see Latham & Pinder, 2005 for a review of relatively recent work supporting aspects of these theories; also see Tay & Diener, 2011 for an application to well-being). More importantly, though, need theories were critiqued for failing to explain the processes that mediated the relationship between needs and behavior. As Latham & Pinder put it, need theories "explain[ed] why a person must act" not "why specific actions are chosen in specific situations to obtain specific outcomes" or how universal needs manage to produce individual differences (p. 488). While answers to all of these questions were necessary for scientists to effectively influence and predict vocational behaviors, needs could only provide a partial answer ("why a person must act"). A more complete understanding required considering a separate, overarching construct. Thus, in the 1970s and 1980s values took on new importance to researchers in vocational, personnel, and organizational psychology.

### Values

Though the study of values predates the study of needs, the two areas of research developed relatively separately until the last three decades of the 20th century. The first systematic study of values was published in 1931 by Allport and Vernon. That study, aptly titled "The Study of Values," centered on German philosopher Eduard Spranger's descriptions of six general "types" of people (aesthetic, theoretical, economic, social, political, and religious; Vernon & Allport, 1931). Each of the six types was associated with characteristic values (e.g., the economic type was said to value the useful and the practical), and these characteristic values functioned as a sort of "gauge" for evaluating the desirability of subsequent actions and events (e.g., creating art—an action not likely to be valued by the "practical" economic type). Thus, for Vernon and Allport, values were beliefs that provided generalized motives for evaluating actions and outcomes of actions as either desirable or undesirable. Although such a broad definition limited the applications of their work, Vernon and Allport can still be credited with being the first to bring both theoretical and psychometrical precision to bear on the study of values.

Later, researchers developed more refined definitions of values. For example, like Allport and Vernon, Rokeach (1973) conceptualized values as relatively stable beliefs

about the desirability of specific actions or outcomes of actions. However, Rokeach added additional restrictions: only beliefs that "transcended specific objects and situations" could be values, and the action or outcome that formed the heart of each belief had to be "personally and socially preferable to an opposite" action or outcome (Braithewaite & Law, 1985, pp. 250–251). In other words, Rokeach clarified that situational and ambivalent beliefs could not be values. Using the Value Survey he developed, Rokeach also found evidence for a further distinction between *instrumental values* (which relate to modes of conduct, like "self-control" and "honesty") and *terminal values* (which relate to end states of existence, like "pleasure" or "financial security"). By tightening the boundaries of the construct and increasing the amount of variability that could be captured by his survey, Rokeach's refinements allowed researchers to more easily measure differences in the values of various individuals and groups. Indeed, as Rokeach animatedly explained to the American Association for Public Opinion Research, his Value Survey was able to significantly differentiate "men from women, hippies from nonhippies, hawks from doves, … good students from poor students, fifth-graders from seventh-, ninth-, and eleventh-graders, retail merchants from sales clerks, Jews from Catholics, Democrats from Republicans, and so forth" (Rokeach, 1968, p. 555).

Like Rokeach, other researchers made methodological improvements that helped facilitate the study of values. However, rather than consider values as a broad category, they focused instead on values related to work and working. Developing reasonably precise, work-specific measures in turn allowed them to articulate, for the first time, theories and models that linked the construct of work values to something practical: work outcomes and career development. For example, contemporary to Rokeach, Super (1953, 1962) developed a model of occupational selection that emphasized the importance of work values as an aspect of vocational identity. In Super's model, vocational identity (e.g., work values, interests, and abilities) along with objective feedback (academic grades, job performance, etc.) and subjective sense of self (as being "creative" or "family-oriented," etc.) together formed a person's *self-concept*. According to Super, employees were most satisfied with work that allowed them to be who they were and wanted to be; in other words, they were most satisfied with work that allowed them to best implement their self-concepts. Choosing a career was thus a life-long process of comparing one's developing self-concept with the self-concepts one believed could be fostered by various occupations. As preferred ways of meeting (or not meeting) needs through work, work values were an integral part of this process (Macnab & Fitzsimmons, 1987).

As noted above, Super created several measures to accompany his model, including a measure of work values (the Work Values Inventory; Super, 1973). Over time, other researchers followed suit and soon there were almost as many measures of work values as there were researchers studying them (Dawis & Lofquist, 1984; Manhardt, 1972; Wollack, Goodale, Wijting, & Smith, 1971). While this surge of interest firmly established the importance of work values, the sheer volume of measures it produced drew criticism and made it difficult to assimilate knowledge across different programs of research. Further, the specific work values fostered by each occupation were still largely unknown. Thus, despite being situated in broad theories of career development, the work value measures of this era lacked clear connections to career-related information. For those working in applied settings, this meant that knowing a client's work values was at best only mildly useful. Perhaps because of this, interest in work values gradually faded, and the construct received relatively little attention from researchers after the 1980s.

Recently, however, interest in work values has been revived, partly due to the efforts made by Hofstede (2001) and others (Fischer, Vauclair, Fontaine, & Schwartz,

2010) to explore the relationship between culture and values (including work values). Of greater import to the rehabilitation professional, though, is the relatively recent development of the U.S. Department of Labor's Occupational Information Network (O*NET; Peterson, Mumford, Borman, Jeanneret, & Fleishman, 1999), an online collection of career development tools which, among other notable accomplishments, finally linked individual work values profiles directly to descriptions of the work values fostered by almost 900 occupations. While the O*NET offers its own publicly available measures of work values (the paper-and-pencil Work Importance Locator (WIL) and the computerized Work Importance Profiler (WIP), discussed below), each of these is based heavily on the Theory of Work Adjustment (TWA) and its brainchild measure of work values, the Minnesota Interest Questionnaire.

### *The Theory of Work Adjustment*

The TWA is perhaps the most useful career theory for understanding the importance of work values in the career development of individuals with disabilities. In fact, TWA originally emerged from efforts to help rehabilitation clients successfully adjust to work after acquiring a disability (Dawis, 2005). Although a thorough discussion of TWA is beyond the scope of this chapter, a brief orientation to some of its basic tenets can provide a framework for selecting an appropriate measure of work values for disabled clients. Readers seeking more detailed information about TWA are advised to review Dawis (2005) and Dawis and Lofquist (1984).

Similar to other career theories, TWA centers on the idea of person–environment fit and is concerned with understanding and intervening upon the individual differences that affect that fit. However, unlike other career theories, TWA focuses on work-related abilities and work values rather than interests. In the theory, jobs and job-holders are seen as having a reciprocal relationship that jointly affects job tenure (or the length of time a person stays in a job). Jobs require employees to have certain abilities, and employees require jobs to provide "reinforcers" (rewards) that meet certain needs (the pattern of which reflects their work values). When "correspondence" (or fit) between a job and a job-holder is high, an employee meets or exceeds the abilities required by a job and the job meets or exceeds the needs required by an employee. High correspondence in the realm of abilities indicates a "satisfactory" employee while high correspondence in the realm of work values indicates a "satisfied" employee. Poor correspondence is often first addressed through attempts at adjustment (basically, either changing to meet expectations or lowering expectations to meet reality); but, depending on the circumstance these may or may not succeed. Unsatisfactory employees may be fired, transferred, or laid off, while satisfactory employees are retained or promoted. Unsatisfied employees, on the other hand, may engage in counterproductive behaviors, quit to pursue another job, or, as is especially relevant to individuals with disabilities, drop out of the workforce altogether.

It should now be clear that the employment problem described in the introduction to this chapter is essentially a problem of job tenure related to satisfaction (rather than satisfactoriness): even after vocational rehabilitation, many individuals with disabilities do not stay employed for very long, generally because they leave (rather than are fired from) their postrehabilitation positions. Fortunately, TWA offers both an explanation for and a solution to this problem—work values. As discussed in the preceding paragraph, when correspondence ("match") between employee work values and employer reinforcers is low, employees are likely to feel unsatisfied and leave their position if no

adjustment ("change") is possible. It follows, then, that rehabilitation professionals can also improve job tenure by ensuring high correspondence between their clients' work values and the reinforcers provided by their clients' employers. However, to do this successfully, rehabilitation professionals must first be able to accurately and reliably assess the work values of individuals with disabilities.

## WORK VALUE INVENTORIES

The four measures discussed below (see Table 12.1) were selected based on the following criteria: adequate psychometric properties, established validity, recent use, general acceptance (e.g., use by more than one researcher or research group), and applicability to vocational rehabilitation (e.g., not measures intended solely for research purposes). Importantly, none were intentionally designed for individuals with disabilities, and those that make use of normative data did not deliberately sample disabled populations. As such, whether any of these measures is appropriate for a particular individual with disabilities must ultimately be decided by the professionals handling that case. The specific nature of the disability or disabilities, as well as the individual's health status, reading level, age, and ethnic/cultural background are all important factors to consider, as each of these may significantly impact the individual's understanding of or response to survey items. Listed in Table 12.1 are practical considerations for using one or more of the work value measures.

### *Minnesota Importance Questionnaire*

As mentioned in the previous section, the Minnesota Importance Questionnaire (MIQ; Rounds, Henley, Dawis, Lofquist, & Weiss, 1981) was one of the several measures that originated from TWA. The MIQ was developed to assess 20 work-related needs which, together, comprise six categories of values. The six values include the following (with associated needs in parentheses): Achievement (ability utilization and achievement); Comfort (activity, independence, variety, compensation, security, and working conditions); Status (advancement, recognition, authority, and social status); Altruism

**Table 12.1** ***Comparison of Work Values Measures***

| Measure | Number of Items | Time to Administer | Mode | Cost | Link to O*NET? |
|---|---|---|---|---|---|
| MIQ-p | 210 | 40 minutes | Paper | $3.25[a] | Yes |
| MIQ-r | 42 | 20 minutes | Paper | $3.25[a] | Yes |
| WIP | 42 | 30 minutes | Computer | Free | Yes |
| WIL | 20 | 30 minutes | Paper | Free | Yes |
| SWVI-R | 72 | 15 minutes | Computer | $34.95[b] | Indirect |

*MIQ-p = Minnesota Importance Questionnaire Paired-Comparison, MIQ-r = Minnesota Importance Questionnaire Rank-Order, WIP = Work Importance Profiler, WIL = Work Importance Locator, and SWVI-R = Super's Work Values Inventory–Revised.*

*Notes:* [a]This is the cost to score and receive one extended report for a single test-taker.

[b]*This is the cost for lifetime access to the Kuder Journey Career Planning System (which includes interest, skill, skill-confidence, and value measures) for a single test-taker. Users must purchase access to the complete system, though several U.S. state governments provide free access to residents.*

(coworkers, social service, and moral values); Safety (company policies, supervision—human relations, and supervision—technical); and Autonomy (creativity, responsibility, and autonomy).

There are two forms available for the MIQ. One form is a 210-item paired comparison form that includes 190 forced-choice items where respondents are asked to choose between two need statements followed by 20 rating items where they are asked to indicate the importance of each of the needs. The second form is a multiple rank-order measure where clients rank the relative importance of sets of five needs. The MIQ forms can be obtained from Vocational Psychology Research in the Department of Psychology at the University of Minnesota (www.psych.umn.edu/psylabs/vpr/default.htm). Both versions are paper-and-pencil measures that can only be scored at Vocational Psychology Research. While this scoring service is fee-based, profits from the fee are used to fund research that keeps the measure up to date. Results from the MIQ provide information on the relative importance of the needs and values categories as well as information about the "fit" (or correspondence) between a client's profile of needs and values and the typical pattern of reinforcers offered by 90 representative occupations.

When interpreting the MIQ, it is important to consider both item (need) level and category (value) level scores, as clients may have strong opinions about only one or two needs within a value category. Further, it is also important to remember that discussion with clients is required to disambiguate low scores reflecting indifference to ("I don't care about relationships with my coworkers"), versus avoidance of ("I do not want relationships with my coworkers"), specific needs or values (Swanson & Fouad, 2010).

The MIQ has excellent psychometric characteristics, including good internal consistency and test–retest reliability, which suggests that the MIQ is a reliable measure that assesses individual characteristics that tend to remain stable over time (Rounds et al., 1981). Data collected as part of the University of Minnesota Work Adjustment Project over the past 45 years also demonstrate that MIQ scores are predictive of job satisfaction (e.g., Dawis & Lofquist, 1984).

The MIQ manual (Rounds et al., 1981) is dated and so are the reinforcer patterns for the 90 occupations that are used to match an individual's MIQ needs and values. Fortunately, both of these concerns have been addressed by the development of the MIQ-based O*NET value measures and the development of occupational reinforce patterns for the almost 900 occupations referenced on the O*NET website (Rounds, Armstrong, Liao, Lewis, & Rivkin, 2008).

#### O*NET Values Measures

When the O*NET developed a model for career assessment, the architects (Peterson et al., 1999) decided that work values would be one of the several constructs that would be important to use in career counseling. One of the best available work value measures was the MIQ. Rene V. Dawis gave permission for the O*NET to use the MIQ as a foundation for the development of O*NET value measures. Two value measures were developed as part of the O*NET that update and expand the information available from the MIQ: the WIP (U.S. Department of Labor, 2000b) and the WIL (U.S. Department of Labor, 2000a). Linking assessment information to the O*NET (www.onetonline.org) allows clients and counselors a vast amount of occupational information on 900 plus occupations in the O*NET database, including occupational descriptions, work activities, work and organizational contexts, skill and ability requirements, knowledge areas

and requirements for occupational preparation, occupational interests and values, and wages and employment trends. A particular important link is that the O*NET organizes occupations based on Job Zones, a series of hierarchical categories based on the required level of education and training.

The WIP (U.S. Department of Labor, 2000b) is a computerized assessment measure that uses the multiple rank-order format from the MIQ. The files for the WIP software and WIP User's Guide can be downloaded from www.onetcenter.org/product.html. The O*NET Work Importance Profiler is also available in a paper-and-pencil version. The multiple rank-order format allows respondents to order the need statements in blocks of five. The respondent is presented with 21 screens. At the beginning of each screen, the prompt, "On my ideal job it is important that…," is provided. Each screen shows five need statements. An example of a set of five need statements in a multiple rank order (McCloy et al., 1999b) is as follows:

My pay would compare well with that of others.
I could do things for other people.
I could be busy all the time.
I could try out my ideas.
The job would provide an opportunity for advancement.

The respondent ranks the five statements in order of importance and then proceeds to the next screen. After completing 21 screens, each respondent rate needs statement as either *important* or *not important*. When the ratings are completed, the respondent's scores on the six work values (Achievement, Independence, Recognition, Relationships, Support, and Working Conditions) are shown on the screen. A report can be generated that includes a list of occupations from the O*NET database that match the individual's profile, sorted into categories reflecting different levels of educational requirements (e.g., Job Zones). Interpretation of WIP results and their application in career counseling is otherwise the same as for the MIQ.

The WIL (U.S. Department of Labor, 2000a) is a self-scoring measure that uses a card-sorting task to determine the relative importance of the MIQ needs. Printed versions of the WIL tools and their supporting documents (e.g., score reports, master lists of occupations, combined lists, and user's guides) are available for purchase from the U.S. Government Printing Office (www.onetcenter.org/product.html). The client begins the WIL by reading through the 20 cards, each with an MIQ need statement. Then, the client sorts the cards putting them into columns, labeled from "Most Important to Least Important," according to their ideal job. After the sort, the client follows directions to self-score and to compare the values to occupations. Typically, a client can complete the sorting task and self-scoring in 30 minutes. Value scores are calculated by hand using a workbook that also lists a number of occupations that are associated with each value by Job Zone. Details of the development of these measures are presented in technical reports by McCloy et al. (1999a, 1999b). Overall, the reliability for the computerized WIP is comparable to the reliability for the MIQ, but the reliability for the WIL is less impressive, perhaps reflecting the limitations of using a card-sorting technique.

Of the two O*NET-based values measures, the computerized WIP offers a quantitative method for matching values to occupations and can be used to generate a detailed report for review by the counselor and client. The self-scoring, WIL version is useful in cases where there is limited access to computers or for group administrations. The WIL is especially useful within a counseling session where the client can talk through the

meaning of the need statements while sorting the need statements according to their importance. The WIL also offers the possibility of clients developing and identifying needs (work outcomes) that are not part of the 21 MIQ need statements and using these statements in the sorting process.

### *Super's Work Values Inventory—Revised*

As mentioned above, Super was an early pioneer of work values research who developed his own measure of work values in 1957. Since then, he and others have revised this measure several times, most recently in 1986 (Values Scale [VS] Nevill & Super, 1986) and 2006 (Super's Work Values Inventory–Revised (SWVI-R; Zytowski, 2006). While the VS is more closely related to Super's career development theory and has been translated into several languages, our literature review suggested that the SWVI-R has, of late, been utilized much more frequently in published research. Also, the SWVI-R is part of a commercially available career planning system (the Kuder Career Planning System) and therefore may be more useful to professionals working in applied settings (e.g., because scoring is provided by the publisher and, as part of the planning system, the measure is integrated with assessment of other important constructs, like vocational interests and skills).

The SWVI-R contains 72 items divided into 12 scales composed of six items each. Clients respond to each item using a 5-point scale indicating degree of importance. The 12 scales represent the following work values: Achievement, Coworkers, Creativity, Income, Independence, Lifestyle, Mental Challenge, Prestige, Security, Supervision, Work Environment, and Variety. With the exception of the Independence scale, each scale has been shown to demonstrate adequate reliability for counseling purposes (Robinson & Betz, 2008). Although normative data are available for this measure, their representativeness is not known. However, the SWVI-R has been shown to be as reliable and valid in predominantly White samples as it is in African American samples (Hammond, Betz, Multon, & Irvin, 2010). Importantly, in August of 2012 Kuder released an abbreviated version of the computerized SWVI-R called the Kuder Work Values Assessment (KWVA). Because the manual for the KWVA appears not to be publicly available, it is difficult to make recommendations regarding this new measure. The likely benefits include shorter administration time (approximately 4 minutes), while likely challenges include a completely different value structure, one that includes only five work values rather than six (www.kuder.com/Content/Flyers/KWVA%20info.pdf). Readers are encouraged to actively monitor the debut of this new measure so that they may accurately weigh its merits and costs as means of assessing work values.

Regarding the use of the measure in vocational guidance, Zytowski (2006) recommended arranging the 12 values into a hierarchy based on the client's responses in order to facilitate interpretation and feedback. Importantly, unlike the MIQ, WIL, and WIP (each discussed above), the SWVI-R does not readily connect to the wealth of occupational information available on the O*NET website. However, the SWVI-R scoring process does attempt to match the 12 SWVI-R work values to the 20 O*NET work values. This allows a list of "matching" O*NET occupations to be reported to clients alongside results from the SWVI-R. However, this matching process is imprecise and requires dissimilar values from the two measures to be treated as equivalent. Thus, the list of O*NET occupations provided by the SWVI-R score report should be interpreted with caution (Rounds & Jin, 2012).

## SUMMARY AND APPLICATIONS

Although studied by various researchers for the better part of a century, work values only recently became useful to professionals working in applied settings with the development of the O*NET, which can be accessed online by anyone, free of charge. The O*NET provides a missing link between information about a person's work values and the work values reinforced by almost 900 occupations. Thus, rehabilitation professionals can now match their clients' individual work value profiles to the reinforcer profiles of various jobs in order to empirically guide career exploration, occupational selection, and work adjustment. Even better, the O*NET devotes an entire webpage to discussing disability accommodations and provides links to resources for determining appropriate accommodations as well as information on how to incorporate need for accommodations into career guidance gleaned from O*NET resources (www.onetonline.org/help/online/accom).

Because of these features, we strongly recommend that vocational rehabilitation professionals utilize the O*NET in their work with disabled clients. However, if a professional desires the ability to assess vocational interests, skills, and work values in an integrated and streamlined way, and, most importantly, if the professional has the funds to invest in a commercial instrument, the SWVI-R may also be a suitable choice. While each of the measures reviewed can be used in conjunction with the O*NET database, as noted above, the link between the SWVI-R and O*NET occupations is somewhat tenuous and must be interpreted with caution. Because of this indirect link to O*NET, because of the cost of administering and scoring the SWVI-R, and because recent research has suggested that the MIQ (and its offspring measures, the WIP and WIL) are more comprehensive than the SWVI-R, we encourage readers to use either the MIQ or one of the MIQ-derived O*NET measures to asses work values (Leuty & Hansen, 2011; although see www.kuder.com/our-unique-approach/research-based-assessments/assessment-summaries/ for information on new measures that incorporate the SWVI-R).

Like the SWVI-R, the MIQ requires a monetary investment. Therefore, unless the rehabilitation professional needs to connect his or her work with a body of research that also uses the MIQ, the O*NET value measures are a more economical choice. Decisions between the two O*NET values measures will likely depend on the characteristics of a particular client seeking vocational rehabilitation. If a client is capable of using a computer, WIP is the easiest to administer and score. However, if a client cannot use a computer or is likely to struggle with directions or the meaning of task items, the WIL, as a card-sorting task, is likely a better choice as it invites involvement from the person administering the assessment. Physical impediments to completing either the WIP or the WIL can easily be overcome with the help of an aide, guardian, or the test administrator. In cases where a client is intellectually incapable of completing either the WIP or the WIL, we suggest that readers explore descriptions of the development of Schwartz's Portrait Values Questionnaire (PVQ; Schwartz et al., 2001) for ideas on how to modify the WIP or WIL to be more accessible to this clientele.

Decades of research on work values can offer a few general guidelines for rehabilitation professionals to consider when using these measures with disabled clients. First, while the work values of an adolescent or young adult client can indeed provide useful information, work value measures are most informative for those who have at least some experience in the workplace (Jin & Rounds, 2012). Thus, young and/or inexperienced clients should be cautioned that their work values are likely to change, and professionals working with these clients should temper the way they weight the results of work values assessment accordingly. Second, it is never advisable to infer work values "backwards" from a person's pre-disability occupation because traumatic experiences (like suddenly acquiring a disability or experiencing an extreme change in health

**Table 12.2** *Work Values and Interest Patterns of Various Occupations in Finance*

| Occupation | Interest Code | Highest Work Value |
|---|---|---|
| Accountant | CE | Achievement |
| Personal financial advisor | ECS | Independence |
| Financial analyst | CIE | Recognition |
| Loan officer | CES | Relationships |
| Bookkeeping, accounting, and auditing clerk | CE | Support |
| Treasurer and controller | CE | Working Conditions |

C = conventional, E = enterprising, S = social, and I = investigative.
Information retrieved from the O*NET (www.onetonline.org).

status) may drastically alter a person's work values (Matthews, 1999). Finally, rehabilitation professionals should be aware that meta-analyses have revealed moderate gender (women prefer working with and helping others more than men; Konrad et al., 2000) and ethnic/cultural differences in work values (Kashefi, 2011). Nevertheless, the effects of gender, race, ethnicity, and culture will likely be more relevant to post-assessment discussions about whether or not these variables limit the client's occupational options.

In summary, work values are important—very important. Concordance (or match) between employee work values and employer reinforcers can predict numerous vocational outcomes, including job satisfaction, occupational commitment, career choice, and career success. Although rehabilitation professionals and their clients may be biased toward emphasizing assessment of skills and abilities, according to TWA, the low rates of occupational satisfaction and high rates of job turnover reported by workers with disabilities actually suggests a problem with work value congruence. To better understand the utility of assessing work values, please refer to Table 12.2. All the occupations listed in Table 12.2 fall within the broader career area of finance, and, according to their interest codes, each occupation should be generally satisfying to an individual with conventional and enterprising (CE) vocational interests. However, examining the third column, it is clear that despite these similarities, each occupation caters most to a different work value. Thus, even in cases where there is a match with interests, poorly matched work values can spoil the overall fit. For example, advising an achievement-valuing client—with the requisite skills, desire for a job in finance, and a CE interest code—to pursue work as a loan officer, according to Table 12.2, would likely lead to less successful outcomes and less satisfaction than advising him or her to explore work as an accountant. In other words, despite being placed in a desirable field in an interesting job for which he or she was well qualified, the employee may lack motivation to work. As vocational rehabilitation turns toward fostering self-determination and acknowledging work as an opportunity for identity development (Soresti, Nota, Ferrari, & Solberg, 2008), understanding and assessing the motivation to work is an important priority for successfully guiding clients into satisfying work.

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# Chapter 13: Vocational Interests

*RONG SU AND JAMES ROUNDS*

***After reading this chapter, you should be able to:***

1. Understand theoretical and measurement issues in the research on vocational interests.
2. Select appropriate and psychometrically sound interest measures to work with clients in rehabilitation counseling.
3. Use interest assessment to facilitate the career development of clients with disabilities.

Entering or reentering the workforce can be a challenging task for individuals following disabilities. The appropriate use of vocational interest measures in career counseling, however, can facilitate this process. Assessment of vocational interests can serve as the first step in career counseling for individuals with disabilities, with the goals to (1) help clients understand their own preferences and obtain more information about the world of work, (2) identify employment opportunities that fit clients' preferences and aspirations for further exploration, and (3) facilitate the search for additional resources that can assist clients in their educational and career development and the achievement of their career goals. The goals of this chapter are to review and familiarize the readers with the construct of vocational interests, to update the readers on the most recent advances and new findings in interest research, especially with regard to group differences in interests and the relationship between interests and performance, and to provide a brief description of appropriate interest measures for rehabilitation counseling, their psychometric properties, and their usage.

Before going into the discussion of interest construct, research, and assessment, we would like to lay out several issues pertaining to the assessment of interests in rehabilitation counseling for the readers to consider. As mentioned at the beginning of this chapter, individuals entering or reentering the workforce following disabilities may face some specific challenges. Taking into consideration and appropriately addressing

these specific issues would maximize the use of interest assessment and facilitate the career exploration of individuals with disabilities. Our goal of discussing the following issues is to provide the readers with general guidance on choosing and using interest measures.

## SPECIFIC ISSUES IN INTEREST ASSESSMENT OF INDIVIDUALS WITH DISABILITIES

First of all, the choice of interest assessment needs to be guided by the reading level of the clients. A wide selection of interest assessments with different reading levels is available. For example, among the frequently used interest measures, the Strong Interest Inventory (Donnay, Morris, Schaubhut, & Thompson, 2005) has an overall reading level at about ninth grade, whereas the Kuder General Interest Survey (KGIS; Kuder & Zytowski, 1988) and the Kuder Occupational Interest Survey (KOIS; Kuder & Zytowski, 1991) have a reading vocabulary of approximately sixth-grade level. Designed specifically for clients with limited reading ability, inventories such as the Ashland Interest Inventory (Jackson & Marshall, 1997) have an even lower reading level that is suitable for clients' needs. For individuals with severe disabilities that impair their reading skills, nonverbal pictorial interest inventories such as the Wide Range Interest and Occupation Test (Glutting & Wilkinson, 2003) and the Picture Interest Career Survey (PICS; Brady, 2007) are available to facilitate their career explorations. Before interest assessment, counselors need to determine the reading level of the client and choose an interest measure accordingly.

Second, client's level of education, career goals, and clients' maturity in career exploration also need to be taken into account in order to choose an appropriate interest measure. Interest measures have different target populations. For example, the Strong Interest Inventory (Donnay et al., 2005) is focused on the professional occupations that require in many cases a college education whereas the Career Assessment Inventory—Vocational Version (Johansson, 1984) was developed toward the more nonprofessional end of the vocational spectrum. The Self-Directed Search (SDS; Holland, Fritzsche, & Powell, 1994) has several different forms for different purposes of use: The SDS Form R is used for the general population; alternatively, the SDS Form Easy (Form E) is for adults and high school students with limited education or reading skills, the SDS Career Explorer was developed for use with middle school and junior high school students, and the SDS Career Planning Form (Form CP) is for people who already have experience working in organizations. Therefore, it is necessary to obtain information during career counseling about a client's current education level, a client's intention to acquire further education or not, whether a client wishes to pursue a professional career or an immediate career entry at a lower level, whether it is the first career entry for a client with limited knowledge about the world of work or a client is reentering the workforce after a period of interruption and has some understanding of different occupations.

During the assessment of interests, it is essential that clients respond to the interest items based on their preferences only, and not think about their abilities or their training and experiences in a certain occupational field. This issue is particularly important for individuals with disabilities as they may preclude and undervalue certain activities or occupations that they are interested in because of perceived obstacles. Such an approach to interest assessment is likely to yield inaccurate interest scores and eliminate the consideration of certain career opportunities that these individuals could possibly pursue. Counselors, therefore, need to spend time with clients prior to administration of interest measures and make sure that clients understand that the purpose

of interest assessment is to discover rather than limit the possibilities for career exploration. Counselors need to stress the importance of endorsing interest items based on one's own feelings and preferences.

After interest assessment, counselors need to work closely with clients and assist them in the exploration of possible career opportunities within their areas of interests, giving considerations to clients' work values, abilities and skills, and training and experiences. In situations where a gap exists between clients' current training and skill level and their desired career options, counselors can help them explore possibilities and make plans for acquiring additional training and developing the required skills. For individuals with disabilities, helping them identify additional resources in their search for employment and career development would be an extremely important next step and a necessary link between interest assessment and the realization of their interests in the world of work.

## VOCATIONAL INTERESTS AND INTEREST MEASUREMENT

Vocational interests, as used in the context of career counseling, refer to measured dispositional interests (for a detailed discussion on the distinction between expressed and measured interests and that between situational interest and dispositional interest, see Savickas & Spokane, 1999, and Silvia, 2001). Dispositional interests are trait-like, reflecting a person's preferences for behaviors, situations, contexts in which activities occur, and/or the outcomes associated with the preferred activities (Rounds, 1995). They are typically assessed by comprehensive interest inventories that allow respondents to express their goals, values, and aspirations, and directly reflect the respondents' self-identity (Hogan & Blake, 1999). As such, measures of dispositional interests are frequently used in applied settings when working with individuals who are making career-related decisions.

The most widely researched and empirically supported structural model of vocational interests was proposed by John L. Holland (1959, 1997), who organized vocational interests into six types: **r**ealistic interests in working with things, gadgets, or in the outdoors; **i**nvestigative interests in science and research; **a**rtistic interests in creative expression, including writing and the visual and performing arts; **s**ocial interests in helping and serving people; **e**nterprising interests in working in leadership or persuasive roles directed toward achieving economic objectives; and **c**onventional interests in working in well-structured environments, especially business settings. These six interest types form a hexagonal (circular) structure that is referred to collectively as the RIASEC model. Figure 13.1 shows the RIASEC circle embedded in a concentric circle interest model (Low & Rounds, 2007). The physical proximity between RIASEC types reflects the closeness of their conceptual relationships. Because of the circular nature of Holland's RIASEC model, it is expected that the relationships decrease as the types move farther away from each other. In other words, one would expect the relationship (conceptual overlap) between the realistic type and the investigative type to be greater than the relationship between the realistic type and the artistic type, which would be greater than the relationship between the realistic type and the social type.

Research has supported the circular ordering of the six RIASEC interest types with large representative U.S. samples of college students and employed adults (Day & Rounds, 1998; Day, Rounds, & Swaney, 1998). A structural meta-analysis of RIASEC correlation matrices also supported the circular ordering of types (Tracey & Rounds, 1993). In additional to the research evidence it receives, the RIASEC model is also widely

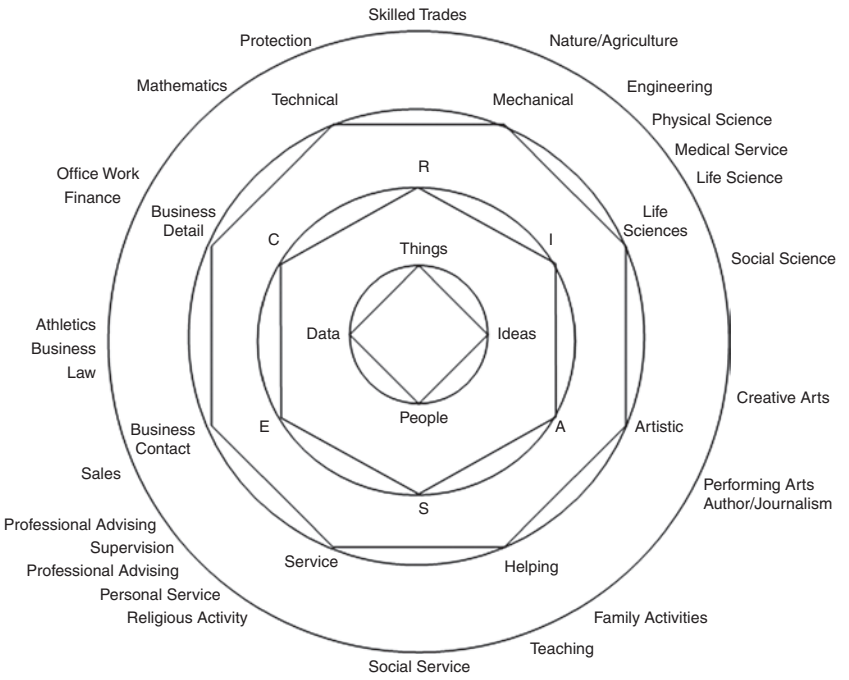


**Figure 13.1** ***Concentric circle representation of interests.***
Adapted from Tracey & Rounds (1995) and Rounds & Day (1999).

endorsed in interest testing. Among the interest inventories most frequently used to assist individuals in making career-related plans, many have scales that are developed specifically to measure the RIASEC interests. The U.S. Department of Labor O*NET Interest Profiler (Rounds, Walker, Day, Hubert, Lewis, & Rivkin, 1999b) and the O*NET occupation classification (Rounds, Smith, Hubert, Lewis, & Rivkin, 1999a) are also linked to the RIASEC constructs. In short, the RIASEC structure has been shown to be a parsimonious and effective model for organizing interests.

The level of generality at which RIASEC interests are measured is called general interests, as they measure interests in broad areas, such as enterprising (*Business*) or investigative (*Science*), with items that encompass a heterogeneous group of occupations and activities. Interest inventories such as the SDS (Holland et al., 1994) are typical measures that were developed to assess general interests. Alternatively, interests can be measured at two more specific levels: basic interests and occupational interests (Hansen, 1984; Rounds, 1995). Basic interests are measured at the level of specificity between interest in a broad area and interest in a certain occupation. Basic Interest Scales (BIS) characterize shared properties of activities (e.g., *selling*, *writing*, or *computation*) and are often implied in the object of interest (e.g., *finance*, *law*, or *engineering*). The concentric circle model in Figure 13.1 shows that basic interests can also be arranged in a circular fashion that corresponds to the RIASEC types. For example, the basic interests of family activities, teaching, and social service are facets of Holland's social type. At the most specific level of the interest hierarchy are interests in certain occupations. Occupational interests are commonly assessed by empirically keyed scales measuring similarity of interests between an individual and incumbents employed in a particular occupation. For example, an occupational interest scale *psychologists* is supposed to distinguish individuals strongly interested in a career in psychological research and service from the general population. The specificity of interest scales is relevant for

counseling with clients as their maturity in career exploration may vary. For clients with limited experience and knowledge of the world of work, measures of general interests may be used to help them narrow down in their exploration of different career choices; for clients who were reentering the workforce, interest measures with higher levels of specificity may help them discover occupational fields that fit their preferences and fine-tune their career decision.

As an inherent part of self-identity, interest serves as the impetus for individuals to navigate through and function effectively in their environments (Su, Rounds, & Armstrong, 2009). Through its interaction with the environments, interest directs individuals' educational and career choices and motivates individuals' goal attainment behaviors. Interest is directional, as individuals are attracted to environments that are compatible with their interests (Holland, 1997; Schneider, 1987). Interests have been found to be a robust predictor of choice of college majors and occupational membership (e.g., Fouad, 1999; Strong, 1943). More importantly, interest is motivational, as it energizes, focuses, and sustains individuals' efforts in pursuing goals and achieving objectives (Nye, Su, Rounds, & Drasgow, 2012). Interests have been linked to increased effort in learning and development as well as at work (e.g., Renninger, Hidi, & Krapp, 1992; Van Iddekinge, Putka, & Campbell, 2011a), timely degree attainment (e.g., Allen & Robbins, 2010; Webb, Lubinski, & Benbow, 2002), and longer occupational tenure (e.g., Gottfredson & Holland, 1990; Morris, 2003), and most recently, with academic and job performance (Nye et al., 2012; Van Iddekinge, Roth, Putka, & Lanivich, 2011b). Next, we review recent advancements in the psychological research on interests, including evidence that interests predict performance.

## RECENT ADVANCES IN INTEREST RESEARCH

In our review of recent advances in interest research, we focus on three important lines of findings. The first line of research summarizes research on the continuity and change of interests across important developmental periods. These findings are important for the use of interest inventories in career counseling since fluctuations in interests over short periods of time would limit their use. The second line of research examined the relationship between interests and performance, and suggested that interests predict achievement and persistence at school and at work. These findings highlighted the importance of interests not only for educational and career choices, but also for success in education and on the job. The third line of research quantitatively summarized the gender differences in vocational interests and showed that men and women on average differ substantially in their career preferences. These findings have critical implications for the selection of interest measures in career counseling and the interpretation of interest assessment results to clients.

Reliability is an important characteristic of interest inventories when used to guide client's decision making. One way to investigate reliability is to calculate a test–retest coefficient, a form of stability across time. For a counselor and a client to have confidence in the results of an interest assessment and guidance provided from these interest scores, it is important that the client's scores are stable across critical educational and career milestones. Information on the stability of interests comes from a quantitative review of longitudinal studies (Low, Yoon, Roberts, & Rounds, 2005). In a meta-analytic review of 66 longitudinal studies, Low et al. (2005) estimated the stability of interests at different life stages. Interests were observed to be relatively stable, even at early adolescence. As shown in Figure 13.2, stability estimates ($r$ = 0.55, 0.57, and 0.58) for the age periods (i.e., ages 12–13.9, ages 14–15.9, and ages 16–17.9, respectively) prior to graduation

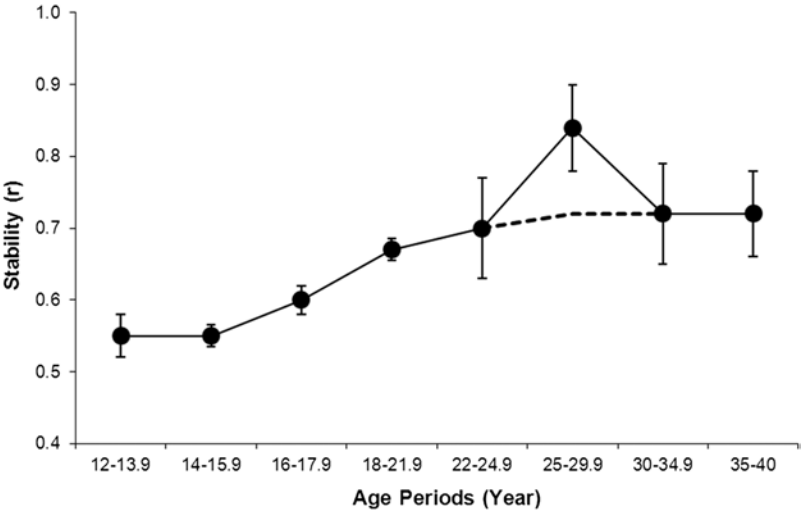


**Figure 13.2** *Stability of interests across age groups.*
Adjusted population estimates of mean interest stability across age categories. Error bars indicate 95% confidence intervals for each age group. Dashed line indicates hypothesized stability.
From Low & Rounds (2007).

from high school remained unchanged during the period. During the college years, interest stability increased dramatically to 0.67. The estimates for the age periods after the college years were 0.70 for ages 22 to 24.9, 0.83 for ages 25 to 29.9, 0.72 for ages 30 to 34.9, and 0.64 for ages 35 to 40. Although estimates continue to fluctuate after the college years, the apparent peak at ages 25 to 29.9 must be qualified by a comparatively smaller sample, and a confidence interval with great overlaps with the intervals of the preceding and subsequent age categories. These results suggest that the actual peak occurred during college years (ages 18–21.9) and subsequently plateau for the next two decades. These findings of the Low et al. study—graphed as an age trajectory in Figure 13.2—demonstrate that interests assessed after high school are remarkably stable and offer an excellent guide to possible occupations that fit those interests.

An important issue that these meta-analytic results do not address is the effect of a disability on the continuity and change in interests across the life span. The few studies to address this question have gathered interest data post-disability. An exception is Rohe and Athelstan (1985); they obtained interest data pre- and post-disability and reported that the interests of males with spinal cord injury were as stable as those of their nondisabled peers and the changes that did occur were consistent with those found in nondisabled samples. Post-disability studies of spinal cord injury (e.g., Rohe & Krause, 1998) have also reported that the interests of males with spinal cord injury are as stable as those of similar age, nondisabled samples. When stability is studied from a mean-level perspective rather than a rank-order perspective, differences across time do appear. For example, Rohe and Krause (1998) report a decrease in social interaction interests that involve persuading, leading, or dominating others. Surprisingly, interests that involve adventuresome and physical demanding activities did not decline. Recent studies also indicate that interest stability interacts with the race and sex of disabled samples (Krause & Ricks, 2012). Clinically, Krause and Ricks (2012) suggest that these findings present a challenge for rehabilitation professionals. Patients with physical disabilities may change their interests to adjust to their disability.

Traditionally, interest assessment has been an essential part in career counseling to assist individuals with their career decision making. The diagnostic use of interest measures for guiding individuals to their preferences and passions is well documented in the literature. Interest measures have typically been linked to job satisfaction (e.g., Assouline & Meir, 1987; Strong, 1943). Recent summaries of the interest literature have demonstrated that interests also play a role in job performance and successful careers. Two recent meta-analyses reviewed studies on the relationship between interests and a variety of performance criteria (Nye et al., 2012; Van Iddekinge et al., 2011b).

Van Iddekinge et al. (2011b) examined 74 studies and 141 independent samples and reported that interests were predictive of job performance, training performance, turnover intentions, and actual turnover behavior. The meta-analytic correlation between interests and job performance was found to be 0.14; the relationship between interests and training performance was even stronger at 0.26; and interests correlated with turnover intentions and actual turnover at −0.19 and −0.15, respectively. When composites of multiple interest scale scores were created to predict performance, the corrected correlation between the regression-weighted interest composites and job performance, training performance, turnover intention, and actual turnover was 0.37, 0.36, −0.32, and −0.33, respectively. Nye et al. (2012) conducted a meta-analysis of 60 studies spanning 70 years and found that interests are related to performance and persistence in both work and academic contexts. Correlations between interests and performance are 0.20 and 0.23 for work and academic settings, respectively. Furthermore, when the degree of congruence between individuals' interest profile and the characteristic of their environments was used as a predictor of performance instead of scores on a single interest scale, the correlations between interests and work and academic performance rose to 0.36 and 0.32, respectively. These meta-analyses provide critical evidence for the predictive power of interests for performance: when individuals are interested in their major or job, they perform better and they are more likely to persist and achieve their educational and career goals.

The gender differences in interest assessment have long been an issue of concern to researchers and practitioners. In the early 1970s, the National Institute of Education formed a planning group to examine what constitutes sex fairness or sex bias in interest inventories. Research of the planning group led to the publication of *Guidelines for Assessment for Sex Bias and Sex Fairness in Career Interest Inventories* (National Institute of Education, 1974) and two edited books (Diamond, 1975; Tittle & Zytowski, 1978) that had considerable impact on the development and interpretation of interest inventories. One of the critical recommendations in the *Guidelines* was the proposal that interest inventories contain sex-balanced interest scales within the limitations imposed by validity considerations. As a result, test developers have taken on various efforts in revising interest inventory items or scales to be more sex-balanced. Only recently, Su et al. (2009) conducted a meta-analysis to quantify the effect sizes of gender differences in interests and to examine the degree to which the procedures taken by test developers have successfully reduced sex restrictiveness of interest inventories.

Su et al. (2009) meta-analyzed aggregated responses from 47 interest inventories with over 500,000 individuals and reported substantial gender differences in the RIASEC interest types and in two bipolar interest dimensions (see Figure 13.3): things–people and data–ideas (Prediger, 1982). Gender difference effect sizes were calculated using Cohen's (1988) *d*. A *d* of zero means that there was no difference between the scores of men and women. A positive *d* indicates that men scored higher than women

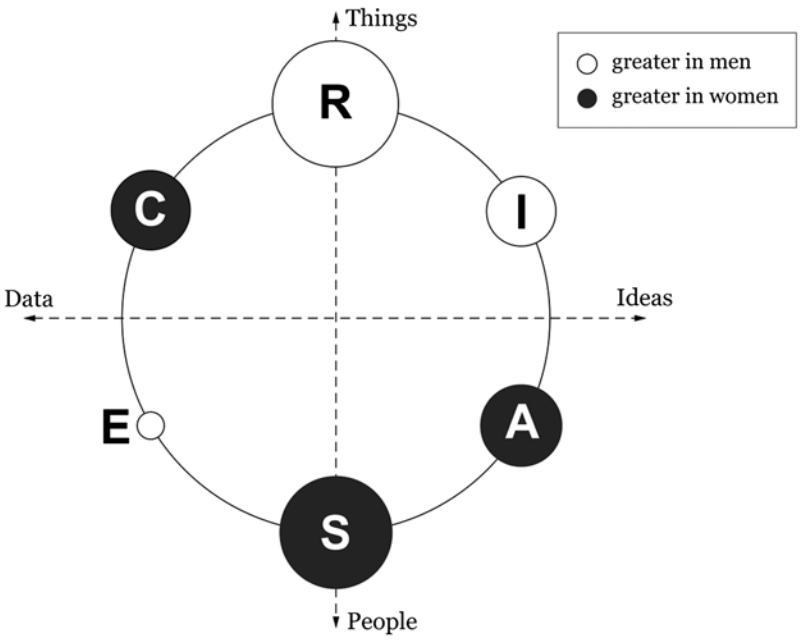


Figure 13.3 *Gender differences in interests.*
From Su, Rounds, & Armstrong (2009).

in that interest area, while a negative *d* indicates that women scored higher than men. Many researchers use Cohen's (1988) suggestions for interpreting the magnitude of the effect (i.e., small $d = 0.20$, medium $d = 0.50$, large $d = 0.80$). Results showed that the gender difference in the things–people interest dimension was close to one full standard deviation ($d = 0.93$), with men preferring things-oriented careers and women preferring people-oriented careers. Men showed stronger realistic ($d = 0.84$) and investigative ($d = 0.26$) interests, and women showed stronger artistic ($d = 0.35$), social ($d = 0.68$), and conventional ($d = 0.33$) interests. Such large gender differences matter for differential career achievement of women and men and may constitute an essential explanation for the underrepresentation of women in many high-status and remunerative occupations, as shown by a number of studies (e.g., Ceci, Williams, & Barnett, 2009; Meece, Parsons, Kaczala, Goff, & Futterman, 1982). The meta-analysis findings also showed that the application of interest inventory revision procedures can substantially reduce gender differences in some male-dominated interest types, such as realistic and investigative interests as well as the things–people interest dimension. Interest inventories showed vast variance in the reported gender difference on their interest scales. Counselors may refer to these findings from Su et al.'s (2009) study for the selection of sex-balanced interest inventories, and are reminded of the issue of sex fairness when interpreting the interest assessment results to their clients.

## EXAMPLES OF INTEREST INVENTORIES FOR USE IN REHABILITATION COUNSELING

In this section, we review several interest inventories that can be used for assessment of clients in rehabilitation counseling. The interest inventories reviewed here are not an exhaustive list but rather some of the most frequently used examples from a wide

selection of available instruments. For each of the interest inventories, we describe the reading level of the instrument, the appropriate age or population for assessment, type of interest scales, and their psychometric properties. We use these examples to highlight the factors to consider in selecting and using interest assessment with clients in rehabilitation counseling.

### *Strong Interest Inventory*

The Strong Interest Inventory (hereinafter referred to as the Strong; Donnay et al., 2005) is an updated version of the Strong Vocational Interest Blank (SVIB), a legacy developed by E. K. Strong in 1927 and the first formal interest inventory ever published (Campbell, 1971). The Strong has substantially expanded through multiple revisions over its long history and different names have been used. The early Strong had only empirically keyed Occupations Scales (OSs) that distinguished the interests of experienced and satisfied job incumbents within specific occupations from the general population. The 1960 revision added homogeneous content scales referred to as the BISs. In 1974, the Strong incorporated Holland's theoretical framework to organize and interpret the earlier empirical efforts, known as the General Occupational Themes (GOTs). Currently, the Strong is one of the most frequently used, well-researched, and highly regarded interest measures available and is employed by more than 70 percent of U.S. colleges and universities to assist students in their career planning (for a detailed review of the Strong, see Donnay, 1997).

The overall reading level of the current Strong is about the ninth-grade level (Donnay et al., 2005). It is appropriate for the use with high school students, college students, as well as adults (age 15 and older). The current Strong contains 291 items and takes an average of 35 to 40 minutes to complete. Respondents are asked to indicate their preferences on a 5-point interest scale for a wide range of occupations, occupational and leisure activities, school subjects, and types of people. One advantage of the Strong is that it includes interest scales of all three levels of generality that suits the needs of clients with different levels of career maturity. It contains 244 OSs (122 occupations with separate scales for men and women), 30 BISs, and six GOTs that correspond to Holland's (1997) RIASEC interest types. In addition to scores on the interest scales, the Strong also provides results on five Personal Style Scales (PSSs) that measure individuals' work style, academic orientation, desire to lead, risk taking, and team orientation. The comprehensive set of information provided by the Strong makes it very useful for guiding clients at all stages of educational or career planning.

The Strong has received a significant amount of research that provides compelling evidence for its reliability and validity. Excellent reliability was reported for the GOTs (internal consistency ranged from 0.90 to 0.95, test–retest reliability ranged from 0.83 to 0.91), BISs (internal consistency ranged from 0.80 to 0.92, test–retest reliability ranged from 0.78 to 0.89), and OSs (test–retest reliability ranged from 0.71 to 0.93). Studies have also shown that the Strong interest scales are effective predictors of educational and career aspirations, college majors, and occupational group membership (e.g., Donnay & Borgen, 1996; Rottinghaus, Lindley, Green, & Borgen, 2002).

The Strong Interest Inventory needs to be computer-scored and its power relies on counselors' accurate interpretation of the scores and appropriate guidance for the clients to understand their interest profiles. This poses relatively high requirements for counselors' experience and skills in interest assessment. Alternatively, a self-scorable version of the Strong, the Strong Interest Explorer, and a complementary interpretation booklet is available (Chartrand, 2001) in situations where quick results for career

exploration are needed. Another note about the Strong is that, although it measures interests in a wide range of occupations, the emphasis is generally on higher-level occupations that require a college education. Therefore, counselors who are working with clients seeking immediate career entry after high school or only some postsecondary training at a community college, business, or vocational-technical school may want to consider interest inventories such as the Career Assessment Inventory (CAI; Johansson, 1984) that also includes interest scales at all three levels of generality but emphasizes nonprofessional occupations.

### *Self-Directed Search*

The SDS is a self-administered, self-scored, and self-interpreted career counseling tool developed by John L. Holland and first published in 1971. The current edition was published in 1994 (Holland et al., 1994). The SDS is based on Holland's (1959, 1997) theoretical framework and assesses clients' preferences for the RIASEC interest types. Respondents indicate their liking for a variety of occupations, activities, as well as their perceived competences in various areas. Responses to items for each of the RIASEC types can then be summed up and these raw scores are used to interpret clients' interests. The three areas where a client has the highest interest scores, known as the high point codes (e.g., IAS, meaning that the client is most interested in research, next in creative expression, and then in working with people), can be used to identify occupations that are compatible with their interests by linking to the accompanied Occupations Finder booklet. Because of its strong theoretical foundation, wide empirical support, simplicity and easiness in scoring and interpretation, the SDS has been one of the most popular interest assessments internationally. It has been used by more than 30 million people worldwide and has been translated into more than 25 different languages.

The SDS is reportedly highly reliable in terms of internal consistency and substantially stable. KR-20 coefficients for the RIASEC scales ranged from 0.90 to 0.94. Test–retest reliability for the scales over an interval of 4 to 12 weeks ranged from 0.76 to 0.89. Holland et al. (1994) reported a series of studies in support of the construct validity, concurrent and predictive validity of the SDS, showing that the interest structure as measured by the SDS follows Holland's hexagonal model and that the SDS scales predicted career aspirations and occupations. Holland et al. (1994) also noted that the concurrent and predictive efficiency of the SDS depends on the age and education level of the sample. Higher validity was typically reported for employed people and people at higher levels of education than for high school students.

The SDS (Form R) is suitable for use with high school students, college students, and adults of all ages. As previously mentioned, the SDS has several alternative forms that counselors may choose to use with special populations: the SDS Form E, with a fourth-grade reading level, is for individuals with limited education or reading skills, the SDS Career Explorer was developed for use with middle school and junior high school students, and the SDS Career Planning Form is for people who already have experience working in organizations. These alternative forms have been shown to have excellent reliability, and construct and criterion validity similar to that of Form R.

### *Kuder Career Search With Person Match*

The Kuder Career Search (KCS) With Person Match is the most recent development of the Kuder Preference Records (hereinafter referred to as the Kuder), first introduced by

G. Frederic Kuder in 1939 and, just like the Strong, enjoyed a long and respected role in career counseling. The original Kuder is characterized by forced-choice items and homogeneous interest scales (similar to BISs and referred to as the Activity Preferences or AP scales) and has evolved into various forms over its history, including the KGIS, Form E (Kuder & Zytowski, 1988) and the KOIS Form DD (Kuder & Zytowski, 1991). The KOIS was also expanded to include empirically keyed occupational scales. The KCS with Person Match (Zytowski, 2007) inherits the forced-choice item format (60 forced-choice triads or 180 activities) and homogeneous interest scales (outdoor, mechanical, scientific, art, music, communications, social services, persuasive, computational, and clerical) and includes a few additional features. First, the KCS clusters respondents into six career clusters that correspond to Holland's RIASEC types by comparing the interest scores of the respondents on the AP scales with the aggregated interest profile of job incumbents within each career cluster (referred to as the criterion group). Because these career clusters are empirically keyed, they are scored like the OSs in the Strong although their generality is at the level of the Strong's GOTs or the SDS' RIASEC interest scales. Second, the Person Match feature matches clients with the seven most similar persons from the criterion pool for each of their top two career clusters based on interest profile correlations and provides job descriptions of these most similar persons to give clients a comprehensive picture of their job possibilities. In addition, the KCS with Person Match reports also include links to detailed information on occupations, college search, financial aid, and government information sites that could be very useful for clients planning the next step in their career search.

The KCS With Person Match is written at a sixth-grade reading level and is applicable for ages from middle school to adult. The KCS report is designed to be easily self-interpreted but would be best understood with the assistance of a knowledgeable counselor. The Kuder series of interest assessments have received abundant research evidence in support of its reliability and validity (see Kuder, 1977). For the KCS with Person Match, the KR-20 coefficients of the 10 AP scales ranged from 0.64 to 0.80 and the test–retest reliability ranged from 0.79 to 0.92. Zytowski (2007) reported an accumulating number of studies that showed the content, structural, and construct validity of the KCS. Furthermore, there is evidence that the KCS facilitates career exploration: it was shown that a group of college students who took the KCS significantly increased their career search self-efficacy as compared to a control group.

### *O*NET Interest Profiler Short Form*

The Strong, SDS, and Kuder are among the most highly regarded and empirically supported interest inventories available and have been referred to as the "Big Three" in interest assessment. However, if counselors are interested in using public domain measures that are easy and free to access instead of these commercial measures, the O*NET Interest Profiler Short Form (IP Short Form; Rounds, Su, Lewis, & Rivkin, 2010) is a good option. The IP Short Form is a web-based interest assessment (www.mynextmove.org) that helps individuals identify their interests in RIASEC types of work activities and enables them to link their interests to close to 1,000 occupations in the U.S. Department of Labor O*NET database (www.onetonline.org). It is the abbreviated form of the self-assessment, self-scoring O*NET Interest Profiler (Lewis & Rivkin, 1999; Rounds et al., 1999a) and contains 60 items with 10 items measuring interests in each of the RIASEC types. Respondents indicate on a scale of 1 (strongly dislike) to 5 (strongly like) their preferences for various work activities and these responses are used to calculate the respondents' scores on RIASEC interests and their high point codes that can be used

to match with O*NET occupations. A unique characteristic of the IP Short Form is that it also asks the respondents to select their current or desired levels of education, training, and experience for doing their job and organize the occupations according to the required level of training (referred to as the *Job Zone*). This Job Zone feature provides very useful information for respondents in terms of career choices currently available that are congruent with their interests and career opportunities that they would be interested and could potentially achieve with further education or training. Because the IP Short Form is web-based, it can be accessed easily and respondents receive instant feedback on occupations matching their interests. Moreover, the online O*NET database serves as a rich resource for respondents who wish to explore more occupations related to their interests and to obtain more in-depth information about the occupations.

The original O*NET Interest Profiler and the IP Short Form has a reading level of eighth grade. Appropriate users of the instruments are high school students, junior college and technical/trade school students, college/university students, and adult workers. Both the original form and the IP Short Form are reportedly highly reliable and are supported by validity evidence. The development and validation of the original O*NET Interest Profiler are documented in detail by Lewis and Rivkin (1999) and Rounds et al. (1999a, 1999b). Rounds et al. (2010) reported that the IP Short Form had satisfactory internal consistency and stability, with Cronbach's alpha ranging from 0.78 to 0.90 and test–retest correlations for RIASEC scales ranging from 0.78 to 0.86. The IP Short Form also showed convergent and discriminant validity with the original form, with the correlations for same-named scales ranging from 0.74 to 0.82 and those for dissimilar scales ranging from 0.12 to 0.48, and sufficiently measured the RIASEC circular structure. It is a psychologically sound, easy to use, informative, and a public-domain, career exploration tool to assist counselors in working with clients with disabilities.

### *The Wide Range Interest and Occupation Test*

Sometimes counselors need to work with clients with serious disabilities, whose reading ability is severely limited. On these occasions, written language-free interest instruments are powerful tools for assisting these clients in their career exploration and planning. We review two pictorial interest inventories: the Wide Range Interest and Occupation Test—Second Edition (WRIOT2; Glutting & Wilkinson, 2003) and the PICS (Brady, 2007). The WRIOT was first introduced by Jastak and Jastak in 1978 as the Wide Range Interest-Opinion Test. The second and current edition (WRIOT2) by Glutting and Wilkinson is titled the Wide Range Interest and Occupation Test. It consists of 238 pictures to help students and adults identify their preferences (like, dislike, or undecided) about a wide range of work situations, including unskilled, technical, professional, and managerial positions. Responses can be hand- or computer-scored to reflect respondents' interests in Holland's RIASEC types, 16 scales that assess the needs, motives, and values influencing occupational choice, and 17 occupational cluster scales. Since the WRIOT2 does not require reading or language understanding to complete, it is ideal for use with individuals with limited reading skills or education. Appropriate user ages are claimed to be 9 to 90 years.

Items in the WRIOT2 were selected to yield high inter-rater agreement among a panel of judges (Kappa coefficient = 0.88 for the classification of RIASEC types and 0.80 for the classification of occupational clusters) as well as item-total correlations above 0.30. Reasonable internal consistency was reported for all the scale (Cronbach's alpha above 0.82). Test–retest reliabilities ranged from 0.61 to 0.91 and were higher with shorter test–retest intervals and for adults. Glutting and Wilkinson (2003) also reported

evidence for the convergent and discriminant validity of the WRIOT2 with the Strong, with correlations of corresponding Holland-type scales ranging from 0.56 to 0.68 and correlations of logically related occupational scales ranging from 0.40 to 0.73.

### *Picture Interest Career Survey*

A more recently developed pictorial interest inventory is the PICS (Brady, 2007). It is a brief, nonverbal, self-reported interest inventory that measures Holland's (1959, 1997) RIASEC interest types and preferences for Prediger's (1982) *people*, *things*, *data*, and *ideas* work tasks. It consists of 36 items and each item is made up of three pictures representing an individual engaged in a work activity at a variety of settings and at various skill levels. Respondents are asked to choose the most preferred picture out of the three presented in each item. The total 36 responses can then be categorized into the RIASEC interest types. The three RIASEC types that receive the most responses are respondents' high point codes and can be linked to O*NET occupations arranged by interest area and job zone, using the accompanied PICS Career Locator. It is quick to administer, easy to use, and relatively straightforward to interpret. However, because of its forced-choice format similar to the Kuder, the interpretation of the PICS is ipsative, or intraindividual. In other words, individuals prefer one area of work over another compared to themselves rather than compared to other individuals.

The PICS was developed for use with individuals from a wide age range (10–65 years) and for individuals representing a wide range of ability levels. As discussed previously, it is especially suitable for individuals with limited reading skills, nonreaders, or non-English-speaking individuals as well as individuals for whom English is a second language. The reliability of the PICS was examined in two adult samples and one sample of high school seniors and reasonable stability was reported (median test–retest correlation was 0.83 for the combined three studies). The total 108 pictures in PICS were carefully designed to represent all six RIASEC types (18 pictures for each type) as well as Prediger's work tasks. The 18 pictures for each RIASEC type are also equally distributed across all six possible secondary codes (three for each secondary code). A series of studies reported by Brady (2007) showed that the high point codes obtained from PICS had very good agreement with respondents' stated career choices, educational programs, and current work histories (ranged from 94% to 98%), supporting its concurrent-criterion validity.

## CONCLUSION

The assessment of interests is the starting point and a critical component in career counseling for clients with disabilities. To select an appropriate interest measure that best assists in the client's career exploration and planning, counselors need to take into account the client's reading skills, degree of education, career goals, and career maturity and be aware of the strengths and weaknesses of different instruments. We reviewed only a subset of a wide array of interest measures available and highlighted several considerations for evaluating an interest instrument, including its reading level, educational requirement, target user groups, cost and accessibility, easiness to administer, score, and interpret, the level of generality of the interest scales, and psychometric properties. Following interest assessment and assessments of other important individual characteristics, such as work values, aptitudes, and skills, additional information and resources shall be provided based on clients' needs to facilitate their career entry or reentry after disabilities.

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# *Chapter 14: Occupational and Labor Market Information*

*MARY BARROS-BAILEY*

***After reading this chapter, you should be able to:***

1. Place occupational and labor market information into a visual model called Labor Market Search (LMSea) to serve as a framework for discussing such data as applied to individuals with disabilities.
2. Ensure that theoretical constructs upon which these data are developed are understood by defining terms emanating from the disciplines developing such information so that rehabilitation professionals and students could be better consumers of such data.
3. Discuss occupational and labor market primary and secondary data and sources as they apply to the econometric, ergometric, and ergonometric information needs in career counseling, placement, or related activities.
4. Offer conceptual and analytic methods for integrating such data into the career counseling process for individuals with disabilities.

With his seminal posthumous book *Choosing a Vocation* (1909/2005), Frank Parsons is often credited with being the first person to launch the field that today includes a variety of specialties as broad as career, addictions, mental health, school, geriatric, and rehabilitation counseling, among others. In his formative publication, Parsons included tables from the 1900 U.S. Census on the workforce listing labor market such as the number of people engaged in each occupation, the distribution of the labor force by gender and geography, and growth per occupation between 1870 and 1900. It was clear to Parsons that the use of these secondary data sources was synonymous with the process of career counseling and guidance. He noted that a vocational counselor "should know how not merely to get the statistics, but how to use them" (p. 71). Parsons further advised that "If the vocational counselor cannot find the information that [he or she] wants from any of these sources, [he or she] can easily get a basis for safe induction by selecting a group of individuals in any industry and getting [their] facts from them" (p. 73). A

discussion about career development and placement of individuals with disabilities would be incomplete without including the role of occupational and labor market information as an important context to such activities.

## OCCUPATIONAL AND LABOR MARKET DATA IN CAREER DEVELOPMENT THEORY

Occupational information has been described as "central to the planning for or direct delivery of services by constituents at local, state, and national levels which have as their major mission education, rehabilitation, or employment" (Herr, 1981, p. 1). Sharf (2010) has described the use of occupational data and their importance in all major career development theories (see Table 14.1) and along the career development process. Whether the application of occupational information is with the use of various classification systems for trait and factor or life span theories, or emerges as a result of counseling for the career decision-making theorists, Sharf (1993) indicated that the existence of occupational information is essential to the career development process and goes hand in hand with the assessment of the individual within a four-step sequential model that he describes as follows:

1. Individuals assess their interests, abilities, values, and personality
2. They learn about occupations
3. They make career decisions based on information about themselves and occupations
4. They learn about and initiate the job search process (p. v)

**Table 14.1** *Sharf's (2006) Use of Occupational Data Across Career Development*

| Theories |
|---|
| I. Trait and Type Theories |
| a. Trait and factor theory |
| b. Work adjustment theory |
| c. Holland's theory of types |
| d. Myers–Briggs type theory |
| II. Life Span theories |
| a. Career development in childhood (e.g., Super and Gottfredson) |
| b. Adolescent career development (e.g., Super) |
| c. Late adolescent and adult career development |
| d. Adult career crisis and transitions |
| III. Special Focus Theories |
| a. Constructivist and narrative approaches (e.g., Narrative, Cochran's, and Savickas) |
| b. Relational approaches (e.g., Roe, Attachment Theory, Parent–Child, Family Systems, Phillips) |
| c. Krumboltz's social learning theory |
| d. Social cognitive theory |
| e. Career decision-making approaches |

Summarized from Sharf (2010).

This simple four-step process underlies much of the literature of career counseling (Osborn, 2010). In working with individuals with disabilities, a filter that underpins the entire process is how the impaired human function of that individual could be maximized and barriers be eliminated, remediated, or minimized in the world of work. More specific to rehabilitation, Patterson (1996) describes the process from the client–counselor interaction as: "vocational counseling→identification of vocational goal→assessment of job readiness→development of placement plan→achievement of vocational goal" (p. 212).

Parr and Neimeyer (1994) studied the effects of occupational information on career decision making and found that "negative information about favorable careers and positive information about unfavorable careers increase vocational differentiation" and that "differentiation increases when information confirms expectations" (p. 32). This research confirms an earlier study by Moore and Neimeyer (1992) that concluded that "cognitive simplification does not result from occupational information, per se, but rather results from the interaction of occupational information with prior expectations" (p. 9). The counselor can help the client sort out differences along this career development and placement process.

## THEORETICAL CONCEPTS: DEFINING THE TERMS

Occupational and labor market terminology is not always used with a great deal of precision in rehabilitation and disability services. To ensure consistent understanding of the terms used in this chapter, several definitions are provided below.

### *Occupational and Labor Market–Related Terminology*

First, we start with the playing field upon which work operates with three definitions:

- **Labor Market:** This is described as "the nominal market in which workers find paying work, employers find willing workers, and wage rates are determined" (BusinessDictionary, para. 1). As described by Barros-Bailey and Karman (in press), this is the stage and context upon which occupations play the actors.
- **Labor Market Analysis:** This is "the measurement and evaluation of economic forces as they relate to the employment process" (State of Massachusetts Labor and Workforce Development, 2011, para. 66). There may be many variables that are included in the analysis from domestic to offshore locations, to demographic and population characteristics, to trends and human resource practices, industrial relations, wages, and more. As noted later in the chapter, labor market analysis is synonymous with LMSea.
- **Labor Market Information:** This refers to "the delivery and analysis of labor force, employment, unemployment, wage, supply and demand, occupational, industrial, economic[,] and demographic data for the analysis of manpower problems for a specifically defined area" (State of Massachusetts Labor and Workforce Development, para. 68). Vandergoot, Swirsky, and Rice (1982) describe it as indicating "what jobs exist, estimating their frequency in the economy of any region, and forcast[ing] their growth and decline in the future" (p. 94).

Vandergoot et al. (1982) state that "coupling labor market with occupational information enables a client and a counselor to select an occupation that not only is suitable, but also will be available when the client is ready to enter it" (p. 94). As defined, a labor market is the place where the value of a worker's labor and skills is negotiated vis-à-vis factors

such as compensation, availability, and working conditions. It is the dynamic context where workers and employers interact. In other words, it is the playing field that can be studied and measured through a labor market analysis or search and from which specific information could be derived. An analysis of the market constitutes a measurement of the types of dynamics that occur in that marketplace and results in labor market information. Understanding the labor market context in which work activity emerges, exists, and disappears—and where individuals with disabilities are placed—assists professionals in clinical and forensic settings to better assist the individuals whom they serve.

### *Work Activity Definitions*

Work activity classification is described in a hierarchy with each level of the definition having the next less-aggregated form of information nestled within it. These definitions are critical to further understanding occupational and labor market information. Other terms represent broader or narrower collections of work activity (Brannick, Levine, & Morgeson, 2007); however, the definitions included in this chapter are the ones most commonly used in rehabilitation and disability services. Beginning with the least aggregated form of work activity and expanding it to the highest level, the terms that are important for the discussion in this chapter are:

- **Position:** This is "a set of duties, tasks, activities, and elements able to be performed by a single worker … [E]ach employed person has a position rather than a job" (Brannick et al., 2007, p. 7). The *Revised Handbook for Analyzing Jobs* ([*RHAJ*]; U.S. Department of Labor, 1991) adds that a position is "a collection of tasks constituting the total work assignment to a single worker. There are as many positions as there are workers in the country" (p. 2–1). An example of a position is a job developer employed with X employer at X location performing X work activities. Classified employment listings or online job boards are typically recruiting for positions, not jobs.
- **Job:** A job is a work activity that is "performed by a group of people with similar work" (Brannick et al., 2007, p. 6). The *RHAJ* describes a job as "a group of positions within an establishment which are identical with respect to their major or significant tasks and sufficiently alike to justify their being covered by a single analysis" (U.S. Department of Labor, 1991, p. 2–1). For example, within rehabilitation counseling, there may be differences between the work activities performed in various practice settings such as rehabilitation case managers, psychiatric rehabilitation counselors, vocational rehabilitation counselors, or disability management specialists in social insurance (e.g., workers' compensation and long-term disability). Each of these titles within rehabilitation counseling is referred to as a job. A job is "the collection of related positions that are all similar enough in terms of work performed or in the goals that they serve for the organization so that everybody in the organization agrees to call the positions by the same job title" (Brannick et al., 2007, p. 7).
- **Occupation:** According to the *RHAJ*, an occupation is "a group of jobs, found at more than one establishment, in which a *common* set of tasks are performed or are related in terms of similar objectives, methodologies, materials, products, worker actions, or worker characteristics" (U.S. Department of Labor, 1991, p. 2–1). Although the work activity in the jobs cited above in rehabilitation counseling may be somewhat different, their purpose, goal (social, educational, and economic integration of individuals with disabilities), and work behaviors are sufficiently the same regardless of whether they are performed in Boise, Idaho or Dublin, Ireland so that that they are considered to be within the same occupation. Thus, an occupation is a broader classification than

a job. For example, a physical therapist uses modalities to improve an individual's gross motor function. While a physical therapist may specialize in vestibular disorders, pediatrics, or sports medicine, the overall work activity performed as it relates to maximizing *gross* motor function remains sufficiently intact for this work activity to be classified as an occupation. Although physical and occupational therapists use modalities to maximize function, the behaviors, scope, and context of occupational therapists for *fine* motor function sufficiently differ for them to be classified as a separate occupation from physical therapists.

- **Occupational Information:** This is "used to inform clients and counselors about jobs so that career and placement goals as well as relevant training programs can be chosen" (Vandergoot et al., 1982, p. 94).

### *Terminology About Psychometric Properties of Occupational and Labor Market Information*

Also important to the discussion of the use of occupational information in disability services are the concepts of econometric, ergometric, and ergonometric data. Understanding these terms allows rehabilitation and disability professionals and students to better decipher the appropriate use of different kinds of data for assessment, decision-making, and placement services. To understand the value of occupational data to career counseling, the rehabilitation or disability professional should have some basic understanding of the psychometric properties of these data. For a more technical overview of the development of such data, the reader is referred to the literature of industrial/organizational psychology, such as *The Handbook of Work Analysis: Methods, Systems, Applications, and Science of Work Measurement in Organizations* (Wilson, Bennett, Gibson, & Alliger, 2012), *Handbook of Industrial and Organizational Psychology* (Dunnette & Hough, 1990), *Job and Work Analysis: Methods, Research, and Applications for Human Resource Management* (Brannick et al., 2007), *The Changing Nature of Work: Implications for Occupational Analysis* (National Academies Press, 1999), and *Final Report of the Panel on the Department of Defense Human Capital Strategy* (Hanser et al., 2008). Three terms from labor economics and industrial/organizational psychology about the psychometric properties and levels of data are used in this chapter:

- **Econometric Data**: These are data derived from "a set of statistical procedures used to estimate economic models. The procedures are used to explain and predict the levels of economic variables as well as to test hypotheses about their relationships, and the results are often used as variables in a wide range of policy settings" (Friedman, 2005; cited by permission, personal communication, December 28, 2011, p. 1). Friedman (2005) further elaborates on the use of econometric data for "virtually all parts of economic theory: macroeconomic phenomena like understanding the causes and consequences of inflation, employment levels and savings rates; and[,] economic phenomenon like estimating demand and supply curves for particular goods and services …" (p. 1). The instruments used to collect these kinds of data may have limited or confounding descriptors that are insufficiently precise when decisions need to be made about work activity and how the abilities of an individual's human function may affect its performance of that work (Social Security Administration, Occupational Information Development Advisory Panel, 2010). Many national surveys on occupational and labor market data are developed for delivering information for policy purposes and are at this level in their psychometric development and uses.

- **Ergometric Data**: The term "ergometric" was coined by J.W. Cunningham in 1971 as "the application of psychometric principles and procedures to the study of human work … [and] draws from theories and principles of human behavior, as well as from established procedures in psychological measurement and work analysis" (p. 7). Thus, ergometric data are less broad in their psychometric design than econometric data. Generally, these data can be more easily, directly, and appropriately applied to individuals in career counseling than econometric data.
- **Ergonometric Data**: Cunningham (1971) distinguishes ergometrics from ergonometrics in that "ergonomics places considerable emphasis upon the physical and physiological aspects of work, whereas ergometrics is more concerned with the psychological aspects of work" as well as "ergonomics typically deals with work at a more molecular level than ergometrics—for example, specific psychological, sensory, and motor responses (in relation to work performance), compared with more molar behavioral variables … such as work-oriented activities" (p. 8). Consequently, ergonometric data are very distinct in its need and application, containing many more distinguishing items and descriptors specific to a single worker performing discrete tasks of a position that can, in turn, be applied to an individual or aggregated into a job or an occupation.

Therefore, econometric data are those that are further away from the kinds of data we typically need in disability because of the manner in which some of the items on the survey instruments are developed based on the survey's policy making purpose and the consequential need for very broad generalizations of those data. The items have broad and few descriptors that are broadly conceptually similar but generally confounding, and the samples are very large or national censuses. Ergometric data describe work activity that generalizes more specifically to smaller groups in an organization or industry or to a more distinct but a broader taxonomy of descriptors in the larger economy. Sample sizes are generally smaller than econometric data. Ergonometric data typically have a greater number of most discrete descriptors and typically do not generalize beyond a single or small group of positions or jobs and may be limited geographically or by industry because the variables are more numerous and tailored to specific needs making large-scale data collection cost prohibitive. Features of one level of data could be found in the other and are not exclusive to each definition. For example, the *Dictionary of Occupational Titles* ([DOT], U.S. Department of Labor, 1991) tends to be more ergometric but has some ergonometric and other econometric features, whereas the present edition of Occupational Information Network ([O*NET], U.S. Department of Labor, 2013) is more econometric but has some ergometric and ergonometric features. These two kinds of occupational information systems have been identified for decades as important for rehabilitation (Kruger, 1980). In application, ergonometric data, such as from a functional job analysis or a labor market survey (LMS), are useful for the rehabilitation professional wishing to collect information about the requirements of work from a single position or a small group of positions in a defined and small labor market to match these to the residual functional capacity of an individual for use in job placement, accommodation, alternative work, or similar habilitation or rehabilitation purposes. Ergometric data from the DOT or O*NET may be more helpful when considering placement and individual's employability in broader defined labor markets encompassing jobs and occupations, or to examine work activity based upon a limited set of distinct data elements. And econometric data from the Standard Occupational Classification ([SOC]; U.S. Department of Labor, 2013) are useful when needing to understand very broad data and trends in large-scale economies, such as when starting the vocational exploration

process where brushstrokes of data are more useful as a starting place in the inductive, dynamic, and iterative counseling process. All these types of data could have some level of usefulness in career development, planning, and placement activities of individuals with disabilities depending on the needs of that individual in the career development process, although the closer the data are to the individual's assessed factors and needs, the better the fit from the data.

## THE LMSea CONCEPTUAL FRAMEWORK FOR OCCUPATIONAL AND LABOR MARKET INFORMATION

Parsons understood that there are two kinds of data used in the career guidance of an individual, published secondary sources—such as those supplied by the U.S. Bureau of Labor Statistics and the U.S. Census Bureau—and primary data collected directly from individuals or groups in society. In 2007, Neulicht, Gann, Berg, and Taylor introduced LMSea, which could be claimed as a conceptual framework and applied to occupational and labor market data with these same primary and secondary data-type distinctions. LMSea contains two components: (1) labor market research (LMR) that comprises secondary data sources, such as those that Parsons used from the U.S. Census, and (2) what Neulicht et al. (2007) call employer sampling but that Barros-Bailey (2011, 2012a, 2012b) advocates still calling LMS. Labor market survey is the collection of primary data from individuals or employers, whether it be a census or sample survey. Barros-Bailey (2011, 2012a, 2012b) explores the difference between surveys of population censuses and samples, which is beyond the scope of this chapter.

In considering occupational and labor market information for career development and employment of individuals with disabilities, each of the LMSea data components stands alone or could be used together. That is, given the individual's needs, a practitioner or evaluator could choose to only consider LMR (that is generally more econometric or ergometric) or to only perform LMS (that is mainly ergometric and ergonometric) or to use both. Thus, LMSea = LMR [secondary data] ± LMS [primary data] (see Figure 14.1). The term LMSea is synonymous with the definition of labor Market Analysis (Barros-Bailey & Saunders, 2012), although the term LMSea will be used in this chapter. LMSea serves as an excellent framework for conceptualizing occupational and labor market information as it pertains to career development and employment for individuals with disabilities; thus, this framework underlies the discussion in this chapter.

**Figure 14.1** *Labor Market Search conceptual framework (LMSea = LMR [secondary data] ± LMS [primary data]).* Developed and adapted by Barros-Bailey (2011, 2012a, 2012b) based on Neulicht, Gann, Berg, & Taylor (2007). Used with permission.

## LABOR MARKET RESEARCH: SECONDARY DATA

Whereas past publications for occupational and labor market information in career development for individuals with disabilities featured particular resources (Patterson, 1996, 2003), because of the multiplicity of existing data in federal and private sources, this chapter will instead focus on helping the practitioner to identify the decision criteria to select the kind of data fitting the needs of the individual whom they counsel. Table 14.2 includes information for over 100 national and international sources in the following areas: workforce and labor market information, portals and systems for decision support, data integration and analysis tools and services, data system crosswalks, and occupational information systems.

Since 2004, the U.S. Department of Labor's Employment and Training Administration has assembled the *Catalogue of Workforce Information Sources* (2010), a vast collection of secondary data sources, to "identify, capture, and organize the dynamic and expanding body of occupational and labor market information continuously generated by public

**Table 14.2** *Occupational and Labor Market Information in the United States*

| *Workforce and Labor Market Information Data Sources* | |
|---|---|
| **1. U.S. Department of Labor** | http://www.dol.gov |
| *A. Bureau of Labor Statistics* | http://www.bls.gov |
| The Current Employment Statistics (CES) | http://www.bls.gov/ces |
| The Current Population Survey (CPS) | http://www.census.gov/cps |
| The Employment Projections (EP) | http://www.bls.gov/emp |
| The Job Openings and Labor Turnover Survey (JOLTS) | http://www.bls.gov/jlt |
| The Local Area Unemployment Statistics (LAUS) | http://www.bls.gov/lau |
| The Mass Layoff Statistics (MLS) | http://www.bls.gov/mls |
| The Monthly Labor Review (MLR) | http://www.bls.gov/mlr/ |
| The National Compensation Survey (NCS) | http://www.bls.gov/eci |
| The National Longitudinal Surveys (NLS) | http://www.bls.gov/nls |
| The Occupational Employment Statistics (OES) | http://www.bls.gov/oes |
| The Quarterly Census of Employment and Wages (QCEW) | http://www.bls.gov/cew |
| The Survey of Employer-Provided Training (SEPL) | http://www.bls.gov/ept |
| *B. Employment and Training Administration* | http://www.doleta.gov |
| O*NET OnLine | http://www.onetcenter.org |
| Internet Links for State and Local Employment Projections | http://www.doleta.gov/business/projections/eta_default.cfm |
| Catalogue of Workforce Information Sources | http://www.doleta.gov/programs/pdf/environmental-scan-report-final.pdf |

(*continued*)

**Table 14.2** *Occupational and Labor Market Information in the United States (continued)*

| | |
|---|---|
| *C. State Workforce and Labor Market Information Websites and Portals* | |
| Guide to State and Local Workforce Data for Analysis and Informed Decision Making | https://winwin.workforce3one.org/view/2001109143648226892/info |
| Informed Decision Making | https://winwin.workforce3one.org/view/2001117241024005500/info |
| State and Local Employment Projections | http://www.commerce.gov |
| **2. U.S. Department of Commerce** | |
| *A. Census Bureau* | http://www.census.gov |
| Survey of Income and Program Participation (SIPP) | http://www.census.gov/sipp |
| Survey of Business Owners (SBO) | http://www.census.gov/econ/sbo/pums.html |
| The National Employer Survey (NES) | http://www.census.gov/econ/overview/mu2400.html |
| Local Employment Dynamics (LED) | http://lehd.did.census.gov/led/led/led.html |
| Quarterly Workforce Indicators (QWIs/NAICS) Online | http://lehd.did.census.gov/led/datatools/qwiapp.html |
| Industry Focus | http://lehd.did.census.gov/cgi-bin/broker?_SERVICE=industry_focus&_PROGRAM=pgm.top_report.sas |
| LED "OntheMap" | http://onthemap.ces.census.gov |
| The Economic Census | http://www.census.gov/econ |
| The American Community Survey (ACS) | http://www.census.gov/acs/www |
| Decennial Census | http://www.census.gov/2010census/data/ |
| Federal Assistance Award Data System (FAADS) | http://www.census.gov/govs/www/faads.html |
| North American Industry Classification System (NAICS) | http://www.census.gov/eos/www/naics/ |
| *B. Bureau of Economic Analysis (BEA)* | http://bea.gov |
| *C. Economic Development Administration* | http://www.eda.gov |
| EconData.Net | http://www.EconData.Net |
| TradeStatsExpress | http://tse.export.gov |
| **3. U.S. Patent and Trademark Office** | http://www.uspto.gov/patft/index.html |
| **4. U.S. Department of Defense** | http://www.defense.gov |
| *A. Defense Manpower Data Center /Statistical Information Analysis Division* | http://siadapp.dmdc.osd.mil/index.html |
| *B. Office of Economic Adjustment (OEA)* | http://www.oea.gov |
| **5. U.S. Small Business Administration** | http://archive.sba.gov/advo/research |
| *A. Small Business Economic Indicators* | http://archive.sba.gov/advo/research/sbei.html |
| *B. Firm Size Data by Location and Industry* | http://www.sba.gov/advocacy/849/12162 |

(*continued*)

Table 14.2 *Occupational and Labor Market Information in the United States (continued)*

| | |
|---|---|
| **6. U.S. Department of Agriculture/Economic Research Service** | http://www.ers.usda.gov/Data |
| **7. U.S. Department of Education/National Center for Education Statistics** | http://nces.ed.gov |
| The National Assessment of Educational Progress (NAEP) | http://nces.ed.gov/nationsreportcard |
| The National Assessment of Adult Literacy (NAAL) | http://nces.ed.gov/naal |
| The Integrated Post-secondary Education Data System (IPEDS) | http://nces.ed.gov/ipeds |
| The National Household Education Surveys (NHES) | http://nces.ed.gov/nhes |
| The NCES Career/Technical Education Statistics (CTE) | http://nces.ed.gov/surveys/ctes |
| **8. U.S. Department of Transportation/Bureau of Transportation Statistics** | http://www.bts.gov |
| Omnibus Surveys | http://www.bts.gov/programs/omnibus_surveys |
| TranStats Intermodal Transportation Database | http://ntl.bts.gov/ref |
| **9. U.S. Department of the Interior** | http://interior.gov/index.cfm |
| **10. U.S. Geological Survey** | http://geo.data.gov/geoportal/catalog/main/home.page |
| **11. U.S. Department of Energy/Energy Information Administration** | http://www.eia.gov |
| **12. U.S. Department of Veterans Affairs** | http://www.va.gov |
| Office of Policy/Veteran Data and Information | http://www.va.gov/vetdata |
| Veterans Benefits Administration (VBA) | http://www.vba.va.gov/VBA |
| **13. The Interagency Council on Statistical Policy (FedStats)** | http://www.fedstats.gov |
| **14. National Science Foundation** | http://www.nsf.gov |
| Science Resource Statistics | http://www.nsf.gov/statistics |
| **15. Private Sources Generating Workforce Information** | |
| ERISS: The Workforce Intelligence Company | http://www.eriss.com |
| Manpower, Inc. | http://www.manpower.com |
| Challenger, Gray & Christmas | http://www.challengergray.com |
| National Association of Colleges and Employers (NACE) | http://www.naceweb.org/home.aspx |
| Economy.com | http://www.economy.com/default.asp |
| Interbiznet | http://www.interbiznet.com |

(*continued*)

**Table 14.2** *Occupational and Labor Market Information in the United States (continued)*

| | |
|---|---|
| University of Michigan/Panel Study of Income Dynamics (PSID) | http://psidonline.isr.umich.edu |
| Rutgers University/John J. Heldrich Center for Workforce Development | http://www.heldrich.rutgers.edu |
| National Venture Capital Association (NVCA) | http://www.nvca.org/aboutnvca.html |
| ***Portals and Systems for Decision Support*** | |
| **1. U.S. Department of Education** | |
| Federal Student Aid Career Finder | http://studentaid2.ed.gov/career/career_finder |
| **2. U.S. Department of Labor** | |
| America's CareerInfoNet (ACINET) | http://www.acinet.org |
| CareerOneStop | http://www.careeronestop.org |
| Exploring Career Information (K12) | http://www.bls.gov/k12 |
| Occupational Outlook Handbook | http://www.bls.gov/oco |
| Standard Occupational Classification | http://www.bls.gov/soc |
| Workforce Information Database | http://www.workforceinfodb.org/19WIDatabase.cfm |
| **3. U.S. General Services Administration** | |
| Careers (Grades 6–8) | http://www.kids.gov/6_8/6_8_careers.shtml |
| **4. Office of Personnel Management** | |
| Federal Jobs | http://www.usajobs.gov |
| **5. Military** | |
| Military Careers | http://www.todaysmilitary.com/military-careers |
| MyMilitary | http://www.military.com/veteran-jobs/skills-translator |
| **6. Private Sources: Firms, Nonprofit Organizations, Trade Associations, Research Centers, and Advocacy Groups** | |
| CareerBuilder | http://www.careerbuilder.com |
| CareerJournal.Com | http://online.wsj.com/public/page/news-career-jobs.html |
| Career Magazine | http://www.careermag.com |
| Career Resource Center | http://careerresourcecenter.org |
| Craig's List | http://www.craigslist.org |
| Economic Research Institute (ERI) | http://www.erieri.com |
| Job Hunter's Bible (*What Color Is Your Parachute?)* | http://www.jobhuntersbible.com |
| Monster.com | http://www.monster.com |

(*continued*)

**Table 14.2** *Occupational and Labor Market Information in the United States (continued)*

| | |
|---|---|
| Snag a Job | http://www.snagajob.com |
| Society for Human Resource Management (SHRM) | http://www.shrm.org/Pages/default.aspx |
| The Economic Policy Institute (EPI) | http://www.epi.org |
| The Federal Reserve System | http://www.federalreserve.gov |
| The Riley Guide | http://www.rileyguide.com |
| **7. Real-Time Workforce Information** | |
| The Conference Board | http://www.conference-board.org/data/helpwantedonline.cfm http://www.conference-board.org/data/eti.cfm |
| Burning Glass (Formerly EmployOn) | http://www.burning-glass.com |
| Indeed Job Trends | http://www.indeed.com/jobtrends |
| Manpower Employment Outlook Survey | http://www.manpowergroup.com/press/meos_landing.cfm |
| Simply Hired Job Trends | http://www.simplyhired.com/a/jobtrends/home |
| ***Data Integration and Analysis Tools and Services*** | |
| ETA—Census Bureau Community Economic Development Hot Reports | http://lehd.did.census.gov/led/datatools/hotreport.html |
| Economic Modeling Specialists Inc. (EMSI) Strategic Advantage | http://www.economicmodeling.com |
| SkillTRAN | http://www.skilltran.com |
| ***Data System Crosswalks*** | |
| National Crosswalk Service Center | http://www.xwalkcenter.org |
| O*NET OnLine[a] | http://www.onetonline.org/crosswalk |
| ***Occupational Information Systems*** | |
| Australian and New Zealand Standard Classification of Occupations | http://www.abs.gov.au/ausstats/abs@.nsf/mf/1220.0 |
| Dictionary of Occupational Titles | http://www.oalj.dol.gov/PUBLIC/DOT/REFERENCES/DOTALPHA.HTM |
| National Occupational Classification (Canada) | http://www5.hrsdc.gc.ca/noc/english/noc/2011/Welcome.aspx |
| O*NET OnLine | http://www.onetcenter.org |
| Social Security Administration (emerging information) | http://www.ssa.gov/disabilityresearch/occupational_info_systems.html |
| Occupational Requirements Survey (emerging information) | www.bls.gov/ors |

[a]The existing crosswalk between the SOC and DOT codes in the O*NET is based on past versions of the SOC and not SOC 2010.
*Notes:* Sometimes, websites change or vanish due to a variety of factors. If a website you visit from this list has a broken link, place the name of the source in a search engine and determine its new location or status.

and private sources" (p. 2). The sources listed in the *Catalogue* form much of Table 14.2 along with resources from Osborn (2010), Patterson (2003), and the author's experience. As the *Catalogue* identifies, secondary LMR sources can come from public or private entities, or from public–private alliances. An important development, at the writing of this chapter, is the Occupational Requirements Survey that is undergoing data collection by the U.S. Bureau of Labor Statistics through funding from the Social Security Administration (last two resources in Table 14.2) in an effort to develop occupational data for its disability programs (Barros-Bailey & Karman, in press). Generally, however, the raw data sources come from sample or census survey research performed at the national level that is categorized and presented according to the needs of the user.

The active environment of the Internet allows for the collection, analysis, and presentation of data previously not available by hardcopy sources; however, the Internet's dynamic nature also occasionally results in changes to where the data reside. Other times, government funding limits or new technology extinguishes or causes to emerge new data sources. To locate any source indicated in Table 14.2 where the link is no longer valid, place the source's name into a search engine and its new Internet address will likely be identified if the data are still collected and available.

### *Deciding on Which Occupational and Labor Market Sources to Use*

In working with individuals with disabilities, deciding what secondary data source(s) to use depends on that individual's needs and where along the career counseling process the person may be. A screening or an extensive assessment of the individual allows for the selection of appropriate secondary data to consider or to rule in or out career options. Given that the match between occupational and labor market data and the individual with functional limitations or restrictions is important for career counseling and decision making, six questions guide the selection of what kind of data to use:

1. **Why?** Why were the data originally collected? Why do I need these data? If the individual I am counseling does not have very clear vocational interests, I may want to start with broad econometric sources such as the SOC's occupational groupings and then more specific ergometric sources like the *Occupational Outlook Handbook*, the DOT, or the O*NET. If these broad econometric sources do not provide sufficient information as to the demands of work for some or parts of the individual's functional assessment, I may wish to consider a more detailed ergonometric tool or data source like an LMS. What is important is recognizing how the data correlate to the individual's profile. If the source does not directly collect the data sought, does the way in which it infers the data through classification or other means make sense for the individual decision-making needs?
2. **What?** The "what" naturally follows from the "why" questions. What does the secondary source report? Compensation? Training or education? Information at the position, job, or occupation level? Commuting patterns? Other factors relevant to the vocational exploration, planning, or job placement process?
3. **Where?** Where were the data collected? From individuals in households? From establishments (employers)? Were data collected someplace where occupational and labor market conditions may be significantly different from those faced by the individual being served? If the data were collected locally, were they aggregated to such an extent where important nuances in the data may be missing for greater accuracy in decision making? If I am counseling someone in a rural area in the Midwest using

data collected in a metropolitan area in the East, I may be arriving at conclusions and decisions with the individual whom I am counseling that may not reflect his or her reality and result in inaccurate decision making that may be detrimental to him or her depending on the service-delivery system or jurisdiction.

4. **When?** When were the data collected? Often, it may take a long time, even years, from the point when the data were collected to when they were reported; thus, changes that might have occurred in the labor market or occupation since the survey data were *collected* may not be captured, although the data show a recent *release* date. With rapid and fluctuating labor markets, more recently collected primary data, such as that obtained through LMS, may be important to consider along with secondary data sources. The "when" question may be very important when designing intervention programs for occupations sensitive to those fluctuations and particularly with direct job placement services.
5. **Who?** Who is the source of the original raw data? Is it a government or private source where there may be limitations or delimitations involving the data's collection? Sometimes, the original data collection source is not evident. For example, some information reported by the U.S. Bureau of Labor Statistics is actually collected by the U.S. Census Bureau.
6. **How?** How did the secondary data source collect the data? How were the data intended to be used? How can the data be used with the individual to provide more or better information to advance his or her career development or placement?

Of course, in each of these categories of questions, more inquiries could be made. However, the 5Ws and an H of questions generally serve as a good guide to interpreting the relevance of LMR to the career counseling needs of the individual.

## LABOR MARKET SURVEY: PRIMARY DATA

Frank Parsons recognized that sometimes LMR is insufficient for career counseling and that there is the need for primary data collection. Sometimes, LMR sources, such as those in Table 14.2, are sufficient given the decision-making needs of the individual. One of the limitations of LMR is that the person needing and using the data has no control over what is asked and collected by the government or private source's survey methodology and may need to collect his or her own data to inform the career counseling and placement process or for forensic purposes. The limitation of secondary data sources for more specific occupational and local needs is likewise recognized by the U.S. Department of Labor in the DOT and O*NET (Barros-Bailey, 2012c) and the rehabilitation literature (Vandergoot et al., 1982). Wright (1980) added that, "Inadequate information about the labor market can be a serious drawback in planning job development efforts" (p. 703). In describing the advantages and disadvantages of econometric types of data in rehabilitation, Vandergoot et al. (1982) indicate:

> National or even regional forecasts may have a fairly high degree of predictive accuracy, certainly when considering the large numbers involved. Fluctuations in local economies, however, tend to cancel one another in these large-scale forecasts. But these local fluctuations are crucial for local agencies. Within a large scale forecast, one area's loss usually can be offset by another area's gain. Within a local economy, a strike in a large manufacturing concern, a plant closing, the award of a large federal contract to a local manufacturer, or a change in the local tax rate can have significant consequences that are not predictable from national or regional forecasts.

> Often, linkages exist within a community so that good or ill events in one section trickle down and affect other sectors of the economy. For these reasons, rehabilitation professionals need to use other approaches to maintain adequate local labor market information. (p. 95)

In rehabilitation and disability services, this primary data collection is typically referred to as LMS because it often takes the form of inquiring about the same, similar, or more detailed information from a variety of individuals or employers. This descriptive applied research method of collecting information about the labor market and occupations has probably been used in rehabilitation and disability services since at least the 1970s (Barros-Bailey & Saunders, 2013) and is an important component of LMSea. Specifically, an LMS is "a survey methods strategy to collect qualitative and/or quantitative data for a small population census or sample about an identified labor market in order to draw inferences to the client/evaluee ($N=1$)" (Barros-Bailey, 2011, 2012b). Although there are many modes of survey data collection, the most common method used is telephonic interviews with a far second being face-to-face interviews with employers or informants who have expertise in the labor market.

Regardless of the mode of data collection for the LMS, there exist survey research guidelines and best practices. Drawing from this literature, Barros-Bailey (2011, 2012b) proposed a 12-step methodology for LMS involving:

1. **Identifying Research Question(s):** The purpose of the LMS and what it is trying to answer
2. **Developing Survey Questions (Items):** Questions asked of employers or individuals
3. **Training the Interviewer(s):** Training of the rehabilitation professional performing the LMS (greatest threat to the LMS's validity)
4. **Selecting the Population: The Sampling Frame:** List of all possible contacts for the LMS
5. **Taking a Census Versus Sample:** Calling the entire list of possible contacts or a subgroup of it
6. **Deciding on Probabilistic Versus Nonprobabilistic Sampling:** Formality of sampling strategy depending on the LMS's purpose
7. **Constructing and Testing the Instrument**: Bringing together all the elements of the questionnaire used for the LMS and testing it to work out potential bugs
8. **Collecting and Preparing the Data***:* Contacting selected list and recording responses
9. **Analyzing Qualitative and Quantitative Data:** Analyzing recorded responses by appropriate methods
10. **Summarizing the Data:** Bringing together the LMS responses into an organized summary
11. **Reporting the Data***:* Presenting the LMS responses in narrative, graphic, or numeric form as appropriate to the audience
12. **Integrating Labor Market Survey Data With Other Labor Market Data:** Comparing and contrasting the LMS outcomes with other secondary LMR data sources

In application, Barros-Bailey (2012b, 2012c) demonstrated the use of the 12-step primary data collection model for individuals with disabilities as did Van de Bittner, Toyofuku, and Mohebbi (2012). In historical LMS literature, Gilbride and Burr's (1993) model for empowering individuals with disabilities to use LMS in their own job placement efforts insinuated the use of the first seven steps of the Barros-Bailey 12-step LMS model while Weed and Taylor (1990) and Weed and Field (2012) implied the use of some of the steps

in the model for clinical and forensic practice (Barros-Bailey, 2012b). By its nature, LMS enables the collection of more ergometric but mainly ergonometric data. It could stand alone at any stage of the career counseling process (2012b) as a supplement to the more secondary econometric LMR data sources, or with other data. For a detailed description of the 12-step LMS model, see *Teaching Labor Market Survey Methodology in Rehabilitation Counseling* (Barros-Bailey, 2012b), *The 12-Step Labor Market Survey Methodology in Practice: A Case Example* (Barros-Bailey, 2012c), and "Labor Market Survey" (Barros-Bailey & Heitzman, in press).

## INTEGRATING OCCUPATIONAL AND LABOR MARKET DATA

Once the preliminary assessment of the individual is performed, and occupational and labor market data are obtained, the next step is to have the data inform the assessment to assist the client with decision making. In their chapter, Truthan and Field describe the transferable skills analysis (TSA) process that is often used in rehabilitation services to assist in performing the link between the world of work and individual traits at the start of the evaluation. Based mostly within the context of trait-and-factor career development theories, TSA has served as a mainstay within rehabilitation for at least half a century. The reader is directed to the Truthan and Field chapter (Chapter 15) that describes how specific occupational and labor market information is used in skills transferability as defined within the rehabilitation literature. However, not all traits and factors are included in the traditional TSA triadic model of (1) categories of technologies of how work is performed (Work Fields), (2) the time lapsed until proficiency is developed in a technique, information is acquired, and average performance on the job is developed (specific vocational preparation), and (3) the components of work performed (materials, products, subject matter, services). Thus, the traditional TSA used in rehabilitation has its limits.

There are other theories of career development where occupational information informs the counseling process and where a greater level of inference is necessary to match occupational and labor market data to the needs of the individual. For occupational and labor market information integration, there are two levels to consider: (1) the micro level where different kinds of data are compared and contrasted within the LMSea framework and (2) the macro level where the data are considered within the broader context of all factors faced by the individual to arrive at career options to ultimately achieve career decisions and job placement. In this section of the chapter, we will discuss how occupational and labor market information is analyzed and integrated at each of these levels.

### *Micro-Level Occupational and Labor Market Data Integration*

At this level of the analysis, the rehabilitation professional considers all data that were gathered *within* the LMSea and how these relate to the requirements of work regardless of whether only LMR or LMS was performed or both were considered. Data may include LMR sources such as transportation and commuting patterns, wages, physical demands of work activities, occupational projections, current openings, rates of anticipated job growth, and others. It may further include LMS information from a census or sample of local employment or informant sources that describe recent, current, or projected information and conditions of work activity and how these apply within that labor market area. How LMR and LMS information compares and contrasts at this micro level within the LMSea is important to analyze.

### Macro-Level Occupational and Labor Market Data Integration

LMSea data, whether they be LMR, LMS, or both, does not stand alone and needs to make sense within the context of the preliminary assessment of the individual. Sharf (2010) describes a variety of methods of data integration in career counseling that are descriptive of this type of analysis. Therefore, macro-level data integration takes the results of the LMSea as compared to the initial individualized assessment and compares and contrasts them with the individual's underlying factors (development, family, geography, education, past labor force participation, chronological and functional age, interests, functional limitations or restrictions, etc.). Occupational and labor market data link forward along the Sharf (2010) model to other important considerations for decision making, such as available resources (e.g., funding and time). For example, if the individual's assessment identified work activity requiring flexible work schedules and none of the data sources provide this information, there is a lack of congruence of data needs and collected data sources at the macro level and the client's questions remain unanswered impeding decision making about plan interventions or future career development or placement activity.

### The Data Integration Model of Occupational and Labor Market Information

Yin (2009) describes pattern matching as an important part of case data analysis, such as when working with an individual. With respect to how occupational and labor market data are used with people with disabilities in career counseling and placement, pattern analysis answers this question: Is there *simple* or *precise* matching of patterns of data among LMSea or between the LMSea components and the overall needs of the individual? For example, assume that the client's vocational goal is to be a cashier and his or her wage requirements for a living wage due to family considerations is $10 per hour. Through an LMR review of the state's labor research division data, we find entry earnings for cashiers to be $9 per hour. In addition, a variety of LMS contacts with local employers results in a wage range of $8.50 to $12 per hour. Comparing the two LMSea data sources, we find that there is *simple* pattern agreement with the client's wage requirements. *Precision* pattern matching would require a closer review of the employers paying in the $10 to $12 per hour range that more closely fits the client's wage requirements in order to identify employer characteristics (industry, size, location, required qualifications, etc.) that might be important to counsel the client about for the job search process. Pattern analysis may be used at the micro-level comparison of the data available in the LMR and LMS components within the LMSea model as well as at the macro level between LMSea and the requirements and circumstances for the individual. In this example, there was general agreement at the micro and macro levels and sufficient data to do a finer level of analysis to assist with career guidance into different kinds of cashiering jobs that pay within the client's required earnings level of at least $10 per hour. However, sometimes, this is not the case. Yin (2009) offers four principles in such an analysis that serve as important guidelines for the integration of occupational and labor market data into career counseling and placement services for people with disabilities: (1) *attend to all the evidence* (like that at the micro and macro levels), (2) *consider all rival interpretations* (e.g., perhaps the higher-paying cashier jobs are with building products retailers that require lifting at a level beyond the client's capacity and may not be a good fit despite falling within the client's wage requirements), (3) *address the most significant aspects* (e.g., the client's needs, so perhaps prioritizing those needs within the LMSea analysis), and (4) *use your own prior, expert knowledge* (e.g., clinical judgment about

career development and placement of people with disabilities in your labor market to empower your client's decision making and ultimate job placement goals).

## CONCLUSION

For over a century since the beginning of career counseling, the role that secondary and primary occupational and labor market data play in the process has been recognized. In this chapter fundamental concepts and definitions for labor market, work activity, and psychometric properties of those data are explained. How that information is organized into an LMSea model is explained with its two main data components involving LMR secondary sources and LMS primary sources. Over 100 information sources were provided, mainly within the LMR component, to assist the practitioner in accessing important secondary occupational and labor market information when those are helpful to the career counseling and placement process. The importance of primary data collection through LMS is articulated within the context of the different kinds and applications of occupational and labor market data when working with a single individual given that person's specialized circumstances. Finally, how these primary and secondary data sources are analyzed and integrated into the career counseling and placement process is described. Regardless of the career development counseling theory the practitioner chooses to use, the value of occupational and labor market information in all these theories is universal. Each practitioner working with individuals with disabilities needs to be an informed consumer of current and emerging sources that will help to best guide the individual whom he or she serves and to remain within the ethical and professional guidelines and standards of the rehabilitation profession.

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# *Chapter 15: Computer-Based Vocational Guidance Systems and Job Matching*

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***After reading this chapter, you should be able to:***

1. Understand the current occupational systems, purpose, and foundation.
2. Understand transferable skills analysis.
3. Understand the importance of search strategy.
4. Understand vocational guidance/job matching.
5. Understand computer-based approaches.

## CURRENT OCCUPATIONAL SYSTEMS, PURPOSE, AND FOUNDATION

A detailed list of occupational and labor market information resources are contained in Chapter 14 on labor market survey. There are currently six primary government systems of occupational classification used to classify civilian work in the United States. This chapter discusses the systems most pertinent to vocational guidance and transferable skills analysis. Each classification system is optimized for specific purposes of interest to the sponsoring government agency. To improve cross-references from one system to another, the Federal Office of Management and Budget requires that each system directly relate to the *Standard Occupational Classification* (U.S. Department of Labor, 2010) in some way. The level of reported occupational detail varies with each system.

### *Current Occupational Classification Systems*

#### OOH: Occupational Outlook Handbook (2012–2013)

Published every other year by the Bureau of Labor Statistics (BLS) for purposes of career exploration, the current version of this exceedingly popular publication is available at

www.bls.gov/ooh while older versions may be found in most public libraries. Written in narrative format with information presented in eight different content areas, the OOH defines 341 occupations in detail.

#### Census: Census Bureau Occupational Codes (2010)

Revised every 10 years, this system is used to classify household survey–reported 30,000+ job titles in the decennial census, monthly Current Population Survey (CPS), and the American Community Survey (ACS). The census job titles map to 535 Occupational groups without detail. Available at www.census.gov/cps.

#### OES: Occupational Employment Survey (2011)

Revised every other year by the BLS for purposes of annual employer-based data collection about employment numbers, wages, industry, and projected long-term outlook for employment. There are no occupational details for the 818 civilian codes. Available at www.bls.gov/oes.

#### SOC: *Standard Occupational Classification* (2010)

Revised every 10 years by the BLS for purposes of a common federal system. All other classification systems must cross-reference to the SOC. Of its 840 unique codes, 820 relate to civilian occupations. There is no occupational detail beyond a group description for these codes. Available at www.bls.gov/soc.

#### O*NET: The Occupational Information Network (2011)

Revised annually by the DOL/Employment and Training Administration (ETA) for career exploration, human resources (HR), and industry career ladders/lattices, the 974 unique occupations include a great deal of occupational detail following a standardized content model (O*NET Consortium, 2012) for worker-oriented characteristics, requirements, and experience. It also include job-oriented details about tasks, tools and technology, worker activities, and workforce characteristics. Data are gathered from job incumbents with Skills and Abilities ratings performed by occupational analysts, who performed paper reviews of jobs rather than on-site job analyses. The DOL revises only 100 occupations each year. There are some good new variables in the O*NET for physical factors such as sitting, standing, and walking. Cross-functional skill sets are grouped into basic, complex problem solving, resource management, social, systems, and technical dimensions. As of 2012, Tools and Technologies (T2) elaborate 45,000+ distinct machines, equipment, tools, and software programs linked to 647 "High Demand" occupations. Available at www.onetonline.org.

#### DOT: *Dictionary of Occupational Titles* (1991, 1998)

The last major revision was published in 1991. An additional 20 occupations were released in 1998 prior to release of O*NET 98 (U.S. Department of Labor, 1991/1998). This "Grand Daddy" of occupational references includes detail about 12,761 detailed occupations. It is the only occupational classification system rated by on-site field job analysts to capture observed ratings of strength, physical demands, environmental conditions,

general educational development (reasoning-math-language), specific vocational preparation (SVP, or time to proficiency), aptitudes, and temperaments. Additionally, the DOT includes some unique code systems that contribute to cross-group transferability analysis called work fields (WF) and materials, products, subject matter, and services (MPSMS) codes. Each DOT code has at least one (of three maximum) WF and MPSMS codes assigned.

**Purpose.** Of these six classification systems, only three contain details useful for career exploration and job matching: OOH, O*NET, and the DOT. The other three systems (census, OES, and SOC) serve only as a cross walk to useful econometric labor market information (see the labor market survey chapter for terminology about the various properties of occupational and labor market information).

For career exploration purposes, OOH and O*NET information are easy-to-read, web-accessible resources. Both sources are designed to serve the primary needs of the general population: neither was designed to serve the needs of the Social Security Administration (SSA) or social insurance programs (e.g., workers' compensation, long-term disability) nor for adjudication of disability claims. Yet, both sources contain some interesting new dimensions about occupations that are not captured well in the DOT (see O*NET Content Model, 2012).

Despite critique of the DOT and its data collection efforts (Miller, Treiman, Cain, & Roos, 1980; Traver, 2011), for persons whose lives have been impacted by disability, the traditional ergometric resource has been the DOT. Over the decades, SSA cultivated a cooperative relationship with the DOL to obtain more specific information helpful to the adjudication process. This same kind of information is also quite helpful in the process of rehabilitation. Many test instruments, work samples, and inventories are developed with a straightforward relationship to the DOT. For more historical context, see www.skilltran.com/support/DOT_History.htm.

**Foundation.** SSA does not get enough credit for causing the DOT to morph and mature into the size, breadth, and depth which it achieves. The DOT is recognized in the Code of Federal Regulations (CFR) as an authoritative reference for reliable job information (20 CFR 404.1566(d) and Social Security Rulings (SSR 00-4p). Deviation from the use of this document requires special handling and declaration by a Vocational Expert and the Administrative Law Judge in Social Security disability adjudication. No other existing government document covers the range of occupations at the level of detail needed for claims management or rehabilitation as the DOT. Work field and MPSMS codes in the DOT squarely fit the SSA transferability definition in the CFR as it applies to disability.

The Social Security model serves as the standard (or benchmark) frame of reference for the definition of transferability and how the process can be applied to most disability-related cases in public and private disability social insurance systems. There are several reasons for selecting the Social Security program as a major referent.

1. The Social Security program has a rich and long history of addressing disability issues, including the consideration of whether a person can work with or following injury.
2. The number of people who have been "processed" through the Social Security Disability Insurance (SSDI) program exceeds three million annual claims. This very substantial process for determining disability and the capacity of a person to be able to work has been implemented for more than 40 years.
3. The (CFR) (Part 404, in particular) defines in great detail the issues related to disability and the disability-determination process. The language is exact and provides a well-defined guideline in arriving at the outcome of the process. The SSA program is

generally considered the source of many rehabilitation (or return-to-work) programs, and has served as a benchmark from which many other related state and federal programs have been developed.

4. Many other public sector organizations use the DOT, including the Department of Veterans Affairs, K-12 Individuals with Disabilities Education Act, Federal Office of Workers' Compensation Programs, Immigration, and state/federal vocational rehabilitation programs.
5. Many private sector industry programs have embraced the DOT for its purposes in claims management and rehabilitation efforts, such as worker compensation, long-term disability (LTD), railroad retirement board, life insurance, longshore act, no-fault auto insurance, pension funds, family law (marital dissolution/child custody), and tort (discrimination, product liability, malpractice, student loan default employability, wrongful death).

### *Transferable Skills Analysis*

There are a variety of definitions of skills in different occupational sources and professions. In 2011, the DOL developed a transferable analysis system using O*NET called myskillsmyfuture.com. But, the National Academy of Sciences review of the O*NET identified that the O*NET contained four different skill definitions, which caused confusion to the user. The SSA has rejected use of O*NET in its present form for transferability analysis (Content Model and Classifications Recommendations, 2009; Truthan & Karman, 2003).

This chapter is specific to how transferable skills analysis (TSA) has traditionally been used in rehabilitation, a method that uses the DOT, not O*NET. Transferable skills analysis, or transferability, is the process by which similar, related, or new jobs/occupations are identified for a person following injury or disability. These jobs are consistent and compatible with previous work experience and fall within the range of residual post-injury functioning of the claimant.

Transferable skills analysis is a procedure utilized by rehabilitation and job specialists for decades. Perhaps the most prominent user has been professionals related to the SSDI (disability insurance) of the Social Security program (Blackwell, Field, & Field, 1992; Field & Weed, 1988; Hannings, Ash, & Sinick, 1972). The return-to-work movement of the 1980s (mostly through state legislatively mandated rehabilitation programs) also utilized various notions of transferability for the injured worker. A natural extension of these legal mandates was the utilization of TSA procedures in the determination of reduced and/or lost employment and the diminution of wages in cases involving personal injury. In these authors' opinion, the main referent and foundation of the transferability process has always been and will continue to be the disability determination program of the SSA.

The TSA process has its roots in the trait factor theory of career development (see Table 17.1) and the methods of sentence analysis used by the Department of Labor to build the job descriptions in the DOT following the criteria of the *Handbook for Analyzing Jobs* (U.S. Department of Labor, 1972; Revised 1991). This technique describes the job-worker situation in a very standardized format. The format includes the worker function (what the worker does), the technologies, machines, tools, equipment and work aids used (how and why the worker does it), and the materials used, products produced, and subject matter or services provided (what the worker works on or works with). Worker technologies are reflected in WF codes, particularly when combined with the SVP needed to properly perform the activities of the WF. Materials, products, subject matter, and services are embodied in MPSMS codes.

The SSA definition is a national standard because it is defined in the CFR (20 CFR 404.1568(d)). The SSA slightly revised this definition in the year 2000, but otherwise has set and followed this definition since 1980. The CFR defines TSA as

***d.*** *Skills that can be used in other work (transferability)*

***1.*** *What we mean by transferable skills.* We consider you to have skills that can be used in other jobs when the skilled or semi-skilled work activities you did in past work can be used to meet the requirements of skilled or semi-skilled work activities of other jobs or kinds of work. This depends largely on the similarity of occupationally significant work activities among different jobs.

***2.*** *How we determine skills that can be transferred to other jobs.* Transferability is most probable and meaningful among jobs in which

- ***i.*** The same or a lesser degree of skill is required;
- ***ii.*** The same or similar tools and machines are used; and
- ***iii.*** The same or similar raw materials, products, processes, or services are involved.

***3.*** *Degrees of transferability.* There are degrees of transferability of skills ranging from very close similarities to remote and incidental similarities among jobs. A complete similarity of all three factors is not necessary for transferability. However, when skills are so specialized or have been acquired in such an isolated vocational setting (like many jobs in mining, agriculture, or fishing) that they are not readily usable in other industries, jobs, and work settings, we consider that they are not transferable.

Transferability of skills analysis is rooted in this conceptually solid SSA definition of transferable skills. The following worker and occupational characteristic codes fulfill the CFR definition of (d)2(i–iii) as follows:

- ***2(i)*** Skill level is implied by the SVP for each WF in work history.
- ***2(ii)*** Work activities, tools, and machines are key components of WFs.
- ***2(iii)*** Raw materials, products, processes, or services are reflected in MPSMS codes.

The SSA model of TSA uses WF codes and MPSMS codes. The analysis also includes the amount of training and/or experience (SVP) typically required for each WF. These codes are fully described in the *Revised Handbook for Analyzing Jobs.* The SSA TSA results (and other occupational searches) should not exceed the residual post-injury worker profile characteristics for Strength, Physical Demands, Environmental Conditions, Aptitudes, SVP, GED-RML, and Temperaments. The maximum levels of SVP, GED-RML, and aptitudes are used based on the demands of past relevant work (PRW). The maximum SVP acquired for each WF should travel with that WF in the TSA process.

In practice, many practitioners used Data–People–Things constructs or the Occupational Group Arrangement (OGA) as a proxy for this TSA process. Some even used *Guide for Occupational Exploration Codes* (GOE). This practice was largely due to the limitations imposed by the available indexes used in the printed materials of the era. As commercial software vendors and private print publishers entered the market space, new "user-functional" arrangements of the DOT-based data were published. Creative software solutions to the TSA process emerged that were much closer to the CFR TSA definition than manual or paper-based methods could achieve.

In his review of various TSA products of the era, Botterbusch (1983, 1986) concurred that the combination of WFs and MPSMS codes with SVP was the only "true method" for a TSA in rehabilitation that tried to match the residual function

achieved through an assessment of the individual with disability to the requirements of work. Truthan (1989) discussed the importance of understanding the purpose of each classification system and search results obtained, whether by manual or automated means.

## *Importance of Search Strategy*

With printed books, only several search strategies are possible. Searches by OGA not only produce some good matches but also miss a few and introduce more that do not fit the SSA definition due to variance from WF. The development of computer-based systems enabled the introduction of many more search methods and linkages between various systems to enable retrieval of supplemental material useful to planning, evaluation, and adjudication. These systems include the following.

### Occupational Group Arrangement

The first three digits of the DOT code refer to one of the 566 OGA groups into which DOT occupations have been classified. The OGA was used heavily for TSA process prior to the automated efficiencies enabled by using WF and MPSMS.

### Data–People–Things

The DPT worker functions were generally also used as a paper-based proxy for TSA in the pre-computer era. Arranged as a loose hierarchy, this framework is very useful for cross-occupational group searches. Two-thirds of the codes reference 50 or more WFs. The "hierarchical" structure holds generally true for the data and people dimensions, but is far less clear for the Things dimension. This can be a very useful mechanism for career exploration, but not for transferability in the SSA model because of the breadth of WFs typically covered.

### Work Fields

The use of the WF codes more finely focuses the search process to a clearly shared group of highly related work activities (same three-digit WFs). Example three-digit codes are precise and specific:

081—Welding
082 —Flame Cutting–Arc Cutting–Beam Cutting
083—Soldering–Brazing

Generally related work activities (two-digit WFs) not only produce an expanded set of possible occupations but also introduce occupations that may require some adjustment and possible supplementary training. For example, the two-digit WF "08" groups occupations in these three codes because of the similarity of "Joining or cutting materials by means of a gas flame, electric arc, laser beam, combination welding process and soldering" (p. 4-4, *Revised Handbook for Analyzing Jobs*, DOL, 1991).

### Material, Product, Subject Matter, Services

When occupations are identified that share a WF from work history are further qualified by examining the MPSMS code (such as the kinds of materials welded or the products produced by welding, such as metal office furniture or fabricated metal products), a much more clear understanding of what a worker did in an actual position emerges.

With multiple jobs in past relevant work experience, intriguing new combinations of various WF and MPSMS codes can lead to interesting new opportunities within residual functional capacity with minimal adjustment built on skills, abilities, and experience acquired through prior work history. This is transferability at its best, and actually comes close to "the experience" requirement that HR personnel seek when hiring.

WFs cut across OGA groups efficiently. Based on author frequency count analysis across the 566 OGA groups, an average of nearly seven WF is represented per OGA group. Only 10% ($n = 57$) of the OGA groups have only one WF, yet every WF was found in no fewer than three OGA groups. On average, more than eight MPSMS codes are found in each OGA group. This is a clear evidence for the considerable heterogeneity of the OGA classification and the ability of the WF and MPSMS code systems to cut across traditional occupational groupings as a cross-occupational descriptor.

### Guide for Occupational Exploration

Searches by GOE code produce occupations related only by general interest, not by related skill or ability. Having a common interest in an area reveals nothing about actual acquired skill or ability. Yet, it is a useful search strategy in the career exploration process, particularly when interests are not well defined or are quite vague.

### Holland (RIASEC)

Search by RIASEC coding (an interest construct created by John Holland (1973) is also a helpful method for identifying occupations useful when career planning and transitioning from one career to another. RIASEC coding has been loosely linked by the DOL to the O*NET classification. Many interest testing instruments and inventories report results using RIASEC coding. Lowe and Lungrin (2012) speak at length about how to use these codes and others to find a good fit between work and personal interests/needs.

### Occupational Information Network

This online resource reports a great deal of information about occupations and has some interesting new tools to facilitate searching. Although the least aggregated of all classifications compared to the DOT, it still lacks the occupational detail required by SSA and many rehabilitation case managers in a variety of public and private settings. The O*NET is intended primarily as a career information and exploration tool for job seekers without disabilities and workforce development professionals. Search by Tools and Technologies (T2) and Detailed Work Activities (DWA) may reveal occupations useful in career transition.

### Classification of Instructional Programs

The CIP codes are used by educators to classify the content of various fields of study and program completion activity. These codes have been linked to O*NET and the DOT. Searches based on CIP codes can be useful to examine occupations for which a person may be trained and the various demands associated with doing those occupations. If a person has already been trained in an area, it may point to other transferable occupations.

### Registered Apprenticeship Partners Information Data Systems

Links O*NET occupations to apprenticeship programs when this type of training is possible.

### Industrial Designations or Designated Industry Classification

This DOT classification has a special section in the printed volume. It groups occupations as commonly found in 140 defined "industries." These designations can be helpful in graduated return-to-work (RTW) planning within the same employer.

### Standard Industrial Classification

An older, four-digit, and now obsolete system of classifying industry by principal business activity, not by occupations. Many manufacturer guides and marketing lists provide information using these categories. These can be useful for Job Search and for Labor Market Survey.

**North American Industry Classification System.** Introduced following the North American Free Trade Agreement (NAFTA) in 1993, NAICS is a six-digit, more modern system of industrial classification designed to promote free trade with Canada and Mexico. All government labor market statistics are now reported using the NAICS system. Some survey data (OES Annual and Employment Projections) report data at the three-, four-, and sometimes five-digit level. This information may also be helpful to graduated RTW planning.

**Military Occupational Classification (MOC).** Some branches of the military have developed their own classification systems to meet their special and unique purposes. Upon separation from military service, by choice, disability, or by reduction in force (RIF), veterans need to translate their experiences into terms useful in the civilian labor force. Military to civilian transition is facilitated through the O*NET structure.

**Career Clusters.** Sixteen Career Clusters form the core framework for 79 distinct Career Pathways designed to make selection of curriculum easier in pursuit of post-secondary training. There are also cross-references from Career Clusters to CIP, SOC, and O*NET codes.

Figure 15.1 summarizes various search methods and interrelationships among the various systems. Each system was designed for its own purposes. In the field of rehabilitation and disability management, some of these classifications can be quite useful. Searching these codes is possible using computer-based systems. Without a computer, searches are arduous when done manually and require multiple printed books, indexes, and cross-references.

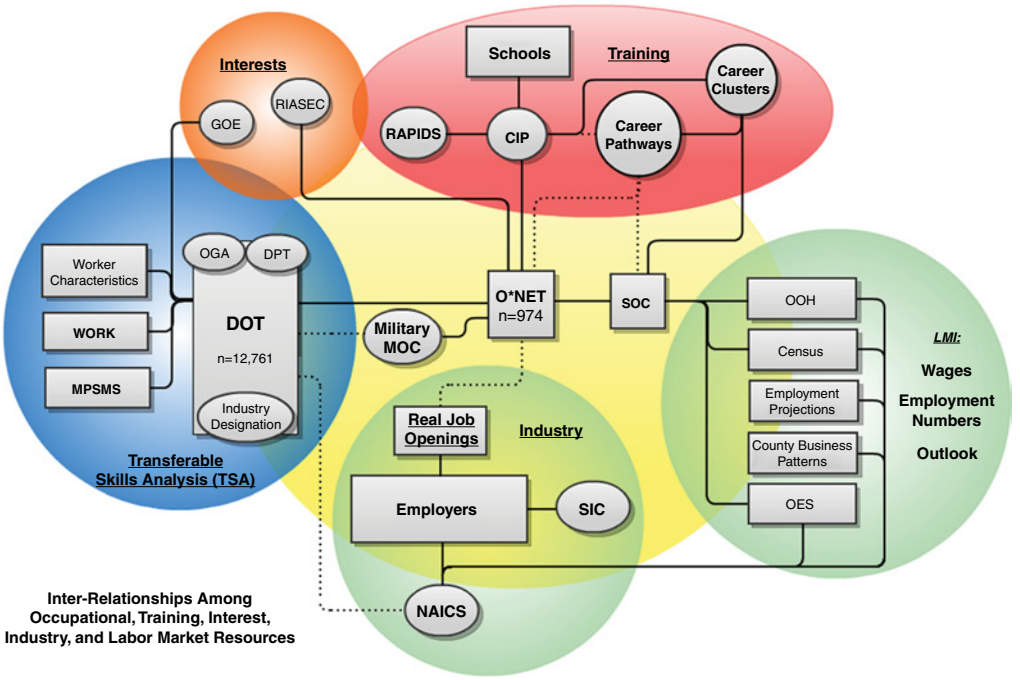


Figure 15.1 *Various coding systems and interrelationships.*

Table 15.1 suggests a variety of ways in which various code systems can be used in specific, common rehabilitation settings.

## *Vocational Guidance/Job Matching*

Figure 15.1 shows that navigation through the maze of available occupational and labor market resources is complex and can be confusing. When working with people who have disabling conditions, the process of seeking alternate occupational opportunities should begin by careful examination of the individual's prior work history (if any) and the current and projected residual functional capacities after maximum medical improvement (MMI). Depending on the venue and constraints of the client, interests and untapped aptitudes may be factored into the job-matching processes. In legal, Social Security, insurance claims processing, and workers' compensation venues, there are statutory and policy constraints on how the range of occupational options can be examined. The bottom line is to know the needs of your client within the program or jurisdiction in which the services are provided. Choose search methods that you know and understand that fit those specific needs. Interpret information wisely. Supplement information using multiple data sources when possible.

The general sequence of guidance/job matching moves in distinct steps and involves different data sources at each step. This sequence and steps include:

1. Work history (past relevant work [PRW] for SSA) if any
2. Residual functional capacity (RFC) after MMI
3. Job-matching search method(s)

Table 15.1 *Suggested Search Strategies by Venue*

| Setting | Function | Search Codes |
|---|---|---|
| Social Security | Claims Adjudication | DOT, **TSA*** |
| | Ticket to Work | Interests, CIP, OGA Industry |
| Long-Term Disability | Claims Management | DOT and **TSA*** |
| | Retraining | Interests, CIP |
| Workers' Compensation | Return to Work | Industry, DOT, **TSA*** |
| State VR | Assessment, Planning, Placement | O*NET, CIP, **TSA*** Interests |
| Veterans rehabilitation | Assessment, Planning, Placement | MOC, O*NET, CIP, Interests |
| Corrections | Assessment, Planning, Placement | Interests, O*NET, DOT |
| Workforce development | Job Matching | O*NET |
| Welfare – Workfare | Assessment/Training | Interests, **TSA***, CIP, O*NET |
| Schools – special education | Assessment/Planning | Interests, O*NET |
| Career transition | Assessment | Interests, O*NET, DOT |
| **Personal Injury Cases** | | |
| Injury to children | Evaluating Potential | DOT/(O*NET) |
| Workers' compensation | RTW/Employability | DOT/O*NET |
| Catastrophic injury | RTW/Employability/LOEC | DOT/O*NET |
| Wrongful death | Future Lost Earnings | LMI–O*NET |
| Spousal support | Employment Potential | DOT/O*NET/LMI |
| | | **TSA*=WF+SVP+MPSMS** |

4. Review of the set of occupational possibilities
5. Feasibility of selected occupations in a specific location
6. Employability of the individual
7. Placeability of the individual in a given location

The process begins in a similar way for all clients.

#### Step 1: Identify Jobs Performed in a Person's Work History

From available records and/or interview with the client, family, or employer, gather as much detail as possible about past work performed. Use the DOT to examine occupational definitions. Choose the DOT occupation(s) that best capture the duties performed by the person. Make sure s/he worked in the position long enough to have acquired the skills associated with the occupation (i.e., meet the SVP level). Choose multiple DOT occupations as needed to describe one job position held. Multiple WF and MPSMS

codes enhance the TSA search process. Ideally, verify your selection of DOT occupations with the individual to confirm your choices. Do not overlook a person's military, college/training, or significant volunteer experience, as these can contribute to a useful skill set. If there is no work history, then consider any educational/training history, transcripts, and test results.

Using an electronic or paper-based form like the Transferability Worksheet (published by E & F, Inc., Ref. W601, 1992), record your selections and all of the worker characteristics associated with that DOT occupation, such as are contained in the SCO-DOT (U.S. Department of Labor, 1993) or *The Transitional Classification of Jobs* (Field & Field, 2004). Computer-based programs retrieve all these information effortlessly and document it in a report format. Note all codes that you expect to search in a later step.

Assuming that there are two or more jobs in the work history, we identify the highest level of demonstrated functioning from each of the work history profiles. For instance, if three different jobs had a strength rating of sedentary, light, and medium, the letter "M" for medium would be entered in the "Unadjusted Vocational Profile (UVP)" line on the worksheet to represent the highest level of demonstrated strength from Work History. The same procedure would be used for all the worker traits. Be careful that you record the proper value as some scales go in opposite directions (Note: GED is 6 high and 1 low while aptitudes are 1 high vs. 5 low [really none]). Computer-based systems scan and calculate these data rows automatically.

#### Step 2: Determine the Residual Functional Capacity

The RFC is an adjustment of the UVP line, taking into consideration any restrictions imposed by disease or injury. For instance, a worker who had been able to work at medium jobs pre-injury (prior to a Lumbar 4–5 accident) might now only be able to work at sedentary jobs. Accordingly, the "M" factor would be adjusted to an "S" on the worksheet. The same procedure would be used in adjusting any or all of the other worker traits. Sources of information that would help decide any adjustment include medical, physical/occupational therapy, psychological reports, and/or psychometric testing and vocational evaluations.

Based on medical opinion, forecast what the maximum level of vocational functioning may be post-recovery. Also, if the client desires to learn about possibilities with training, be sure to adjust GED and SVP levels to appropriate post-training target levels. Incorporate test results for aptitudes, when available. Use good judgment when interpreting test results. Test results reflect performance on a specific day in an unfamiliar environment versus aptitudes, which have been clearly demonstrated from actual prior work performance. Unless an existing disabling condition impacts performance, avoid adjusting aptitudes, downward. For unusual/ambiguous case situations, see "Tips & Techniques" at online.skilltran.com/support.

Sometimes, there is conflicting information presented from different medical sources. In this circumstance, prepare different RFC scenarios and search using each of these differing scenarios to better grasp the vocational impact of each scenario.

Just as in calculating UVP, keep in mind the meaning of the ascending or descending values of scales (GED, SVP, and Aptitudes). Computer-based programs may allow you to ignore certain factors altogether. Be sure to adjust only those factors relevant to the injury and for which you have supporting evidence of functioning at the chosen level. Be prepared to defend each of your choices when asked. Certain RFC adjustments have a huge impact on the DOT occupations, such as Occasional Reaching, Handling,

Fingering, or Near Acuity. Frequency counts, such as listed in the *Pocket Guide to the Dictionary of Occupational Titles and the Characteristics of Occupations* (SkillTRAN, 2010), can guide your choice of RFC values.

#### Step 3: Search for Matching Occupations

This is the critical step to discover occupations that fulfill your case needs. Use Table 15.1 to guide your choice of codes to use for searching. Your choice of search method(s) ties to the relevance of the search results (Truthan, 1989). While all these methods may be replicated manually, it is usually not time efficient to do so. Computer-based software performs this step swiftly and with great accuracy. Most software programs allow multiple search methods, but usually search using only one method at a time. While the results produced from different searches may overlap some, usually there are completely different ideas that emerge from using multiple search methods. Sometimes the venue completely controls the search method used (Field & Weed, 1988).

For manual, book/paper-based transferable skills analysis, follow these suggestions:

***a.*** Examine the same occupational area (OGA) that represents the primary job history of the worker. Look for other occupations by OGA groups from PRW. For example, if the worker has held two or three jobs in the "machine trades" (OGA "6XX"), then it makes good sense to attempt to find similar or related titles in the same "machine trades" area. This is a critical first step in assuring that new jobs will have the same general work requirements (aptitudes, knowledge, and capacities) as previous jobs. It does not make good sense, for example, to place a person in the "service" industry (with lots of "people contact") that has had 30 years of experience in the "machine trades" (with little people contact).

***b.*** Within the OGA, stay within the same WF, or one closely related. This step will insure that a person with a good work history in machining (WF 057), for instance, will be able to transfer to similar or related jobs with the same or similar work skills (e.g., method or active verbs, machines, tools, equipment, and work aids). Remember, work skills are best represented by aptitudes, knowledge, and capacities related to a specific area of work. Identifying a job or jobs for a person with the same work skills as previously demonstrated makes good sense.

***c.*** Identify jobs within the same OGA group and the same WF that are equal to or less than the requirements of the various worker trait factors in the adjusted RFC profile.

This procedural approach quickly permits the user to narrow the 12,761 jobs listed in the DOT to a small number of occupations that fall within the worker's range of experience, skills, capacities, and functional restrictions. From this shorter list of occupations, the user would select the "most appropriate" jobs by taking into account other relevant worker trait data and the preferences of the worker (if possible).

When using a computer-based application, the search process is done in seconds and can be a far more sophisticated search, examining the multiple WF and MPSMS codes of work history. This method more closely emulates the intent of the CFR definition of TSA. Multiple search scenarios can be also be easily and quickly done, particularly to explore the vocational impact of different hypotheticals. It is recommended that computer-based searches begin with the most stringent searches possible (all three digits of the WF and MPSMS codes). If "not enough" occupations emerge, then repeat the search using a less stringent combination of WF and MPSMS. Different software vendors use different labels to describe these various search methods. SkillTRAN and OASYS, for example, use these labels (Figure 15.2).

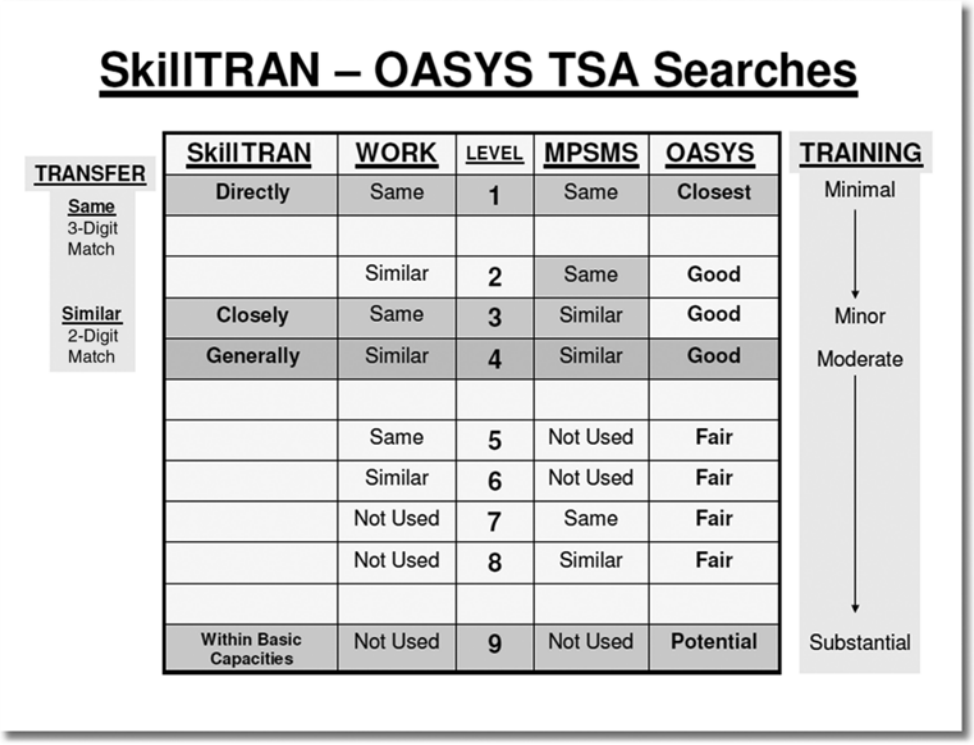


Figure 15.2 *SkillTRAN labels for various TSA search methods.*

Other search methods can also be used, depending on the venue. Some are possible only when using software, since indexes and cross-references to the other code systems may not have existed when the DOT was first published.

From all search methods, manual or computer-based, there will be a group of occupations produced, unless the RFC is so restrictive that no occupations emerge. Such a result set is a valid indicator provided that the RFC and PRW are correctly coded and supported by case evidence.

### Step 4: Review Occupational Possibilities

Finding similar or related jobs for a worker following disease or injury is not an exact science. Rather, the TSA and other search methods can result in the selection of some reasonable and common-sense selections that would be appropriate for the worker. Computer-based searches can find a spectacular number of occupations, but many may be inappropriate. Results of all search processes should be carefully reviewed and screened for "reasonableness." Carefully review the suggested list for any additional factors that may be nonstandard factors in the DOT, such as sit/stand at will, reaching overhead, one hand/arm limitations, or similar conditions applicable to the case. Some DOT occupations that may emerge may indeed be possible according to the PRW and RFC criteria, but may be highly inappropriate for the geographic area. Use professional judgment. Simply attaching a list of computer-based search results without review, comment, or examination of Steps 5 and 7 may be meaningless or possibly even harmful to the client.

### Step 5: Feasibility of Selected Occupations in a Specific Location

Manual and computer-based search results can produce a lengthy list of possible occupations. The list can be massaged considerably by examining cross-referenced sources of labor market information (LMI), including wages, employment numbers, long-term outlook, industry, and local opportunities for employment or training (depending on client requirements). Since LMI is not collected at the DOT level, it is necessary to cross-reference to alternate systems such as Census, OES, and CIP. This is best accomplished using either commercial software or public resources such as

O*NET—www.onetonline.org
Career OneStop—www.careeronestop.org
(see also the comprehensive list presented in Table 17.2)

Public resources often link to many other websites, whereas commercial software generally assembles all these information into a standardized format that does not require Internet access. One company, SkillTRAN LLC, has created a highly specialized estimation method to interpret aggregated public LMI for employment numbers down to the DOT level. Advantages of commercial software include a common interface to a wide variety of data, extra features to interpret data more easily, and it can work in a courtroom, doctor's office, or rural client home without Internet connectivity.

### Step 6: Employability of the Individual

Employability requirements of the individual require considerable professional judgment. These factors exist outside the context of what a person could actually do and address issues like:

***a.*** Transportation to job site—such as by car, bus, ride-share, or walk/bike
***b.*** Absenteeism—ability to work each day, on time, as scheduled, on the required shift
***c.*** Appearance—personal grooming, appropriate clothing
***d.*** Communication skills—language, social, supervision, attitude
***e.*** Learning style—rate, retention, repetition, directions
***f.*** Work habits—safety, attentiveness, cleanliness
***g.*** Family/external supports—child/elder care
***h.*** Job-seeking skills—résumé, interviews, application process, online job seeking, social media sites, interpersonal networking

### Step 7: Placeability of the Individual in a Given Location

When the pool of potential occupational goals has been winnowed down to a handful of occupations for placement or the litmus test of a labor market sampling/survey, then it is time to face the reality of a local labor market. Determine the reasonable commute range for the individual (sometimes this is defined by the needs of the client) and the relevant industries in which target occupations may exist. Research the employers in those industries, of proper size (number of employees), to determine if there are plenty of potential employers available to hire for the targeted occupations. Companies should be of sufficient size in order to increase the probability of identifying employment

options. If the findings are questionable or if there are special circumstances in placing a particular individual, make phone calls using appropriate labor market survey strategies. Potential public resources to obtain this information are

- State manufacturing guides
- Chamber of commerce memberships
- County business patterns
- Online phone books—yellow pages
- State employment—workforce development boards
- Job aggregators: www.monster.com, www.simplyhired.com, www.indeed.com, www.careerbuilder.com

Sometimes, employers are reluctant to publicly post position openings since they do not want to be inundated with hundreds of applicants or they are recruiting for emerging or particular kinds of jobs that may not occur through many publicly available job boards. This is called the "hidden job market" and requires digging to find the "right doors" on which to knock. A public resource (one employer at a time) is www.careerinfonet.org/employerlocator/employerlocator.asp

Commercial software companies and websites also sell business listings which are useful as employer lists for labor market survey. SkillTRAN, LLC has a commercial database of employers designed to facilitate the connection of job seekers with potential employers via a proprietary linkage it developed between the DOT and relevant NAICS codes of employers. When using any resource for employer listings, learn about how recently the data were collected and the limits/constraints of each data source.

### *Computer-Based Approaches*

Computer-based systems are available from a number of vendors. All operate in a similar fashion in terms of building a work history and enabling RFC adjustments. Search methodologies and occupational databases vary significantly. Databases modified from the standard DOT database distribution may not be accepted in certain venues. It is important to remember the following:

- Be sure to accurately code work history and RFC.
- Not all software programs search the same way.
- Each different program generates a different set of results.
- There can be substantial variation between similar methods.
- Search *strategy* matters!
- How you define "skill"/"skills analysis" may vary by venue.
- Your search strategies should match the needs of your client.
- Carefully review each suggested occupation for reasonableness.
- Use of multiple systems is a good idea to explore all search methods.
- Select software vendor(s) to fit the clients that you serve.
- Understand completely how the system works to be able to defend it well. In forensic situations, the admissibility of some search methods can/will be challenged. The author's thoughts on this topic are posted at online.skilltran.com/support/Daubert-Kumho.htm.

Table 15.2 presents contact information for a variety of commercial software vendors.

Table 15.2 *Commercial Software Vendors*

| Vendor | Product(s) | Database |
|---|---|---|
| Career Planning Specialists LLC www.careerplanningspecialists.com (734) 459-7348 | Open Options | Modified DOT |
| ECI-Endeavors Kenneth Dennis (800) 595-4033 | Vocational Software | Unknown |
| Economic Research Institute (ERI) www.erieri.com (800) 627-3697 | PAQ/eDOT Occupational Assessor | DOT/Modified DOT LMI & Employers |
| Billy McCroskey Vocationology, Inc. www.vocationology.com (763) 569-0680 | McCroskey Vocational Quotient System (MVQS) | Modified DOT LMI |
| SEER – Robert Hall www.seersoftware.net (619) 463-9334 | Software for Employment, Education, and Rehabilitation | O*NET |
| SkillTRAN LLC www.skilltran.com (800) 827-2182 | OASYS, OccuBrowse+ Job Browser Pro, Placement Planning Service (PPS), Pre-Injury/Post-Injury Analysis (PREPOST), Career Consulting Service (CCS) | DOT/O*NET & Employers LMI/Schools |
| VocRehab Inc. Tom Jozaitas vocrehab.com (800) 365-5449 | Career A.I. WebTSA | DOT LMI |

## CONCLUSION

Transferable skills analysis is a time-honored and time-tested method for reasonably selecting similar or new jobs for people following illness or disability. The most critical ingredient in the determination process is the activity and preparation of the practitioner. In cases where the online O*NET or a commercial computer program is used, information that is input to the program is determined by the practitioner. Likewise, any report, including job recommendations, generated from the computer process need to be carefully scrutinized for relevancy and appropriateness. Ultimately, the TSA process is a method for processing occupational information about an individual's level of skills and the potential ability to use those skills in a variety of reasonable (post-injury) occupations supported by relevant LMI.

## SUGGESTED ADDITIONAL READING

Reference List on Transferable Skills—www.skilltran.com/support/TSAReferenceList.htm
DOT History—www.skilltran.com/support/DOT_History.htm
Forensic Fights—www.skilltran.com/support/Daubert-Kumho.htm
Going Forward—What's Next?—www.skilltran.com/support/goingforward.htm
Glossary (Alphabet Soup)—www.skilltran.com/support/glossary.htm
O*NET versus the DOT—www.skilltran.com/support/ONETvDOT.htm
Tips & Techniques for Common Case Situations—www.skilltran.com/support/tips_techniques.htm

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# *Chapter 16: Understanding Work Analysis and Its Applications*

*SHANAN G. GIBSON*

***After reading this chapter, you should be able to:***

***1.*** Provide a descriptive definition of work analysis.
***2.*** Understand the history of work analysis.
***3.*** Identify the methodological considerations in work analysis.
***4.*** Summarize the major work analysis systems.
***5.*** Summarize the primary applications of work analysis.

The topic of work analysis (or "job" analysis, if you prefer) is frequently given very limited coverage in textbooks related to occupational development, vocational behavior, rehabilitation counseling, and other rehabilitation health care fields; this is truly unfortunate. A comprehensive understanding of the requirements of work is essential to the career development and employment of individuals with disabilities; work analysis provides the foundation for building organizational processes that are effective, inclusive, and legally defensible. This chapter seeks to provide the reader with a thorough understanding of work analysis through coverage of its definition, history, methodological considerations, and applications.

## INTRODUCTION TO WORK ANALYSIS

The workplace of today is a very different entity from what existed just a decade ago. For many, the concept of *work* extends beyond one's *job* and involves a much larger system of interrelated requirements, context, and organizational attributes. Although the concept of *job analysis* has been part of the field of industrial psychology since at least the early 20th century (Wilson, 2007), the term *work analysis* reflects the broader, more diverse nature of work as it is currently experienced. As such, this chapter's focus

is on the processes associated with understanding work as it is actually performed. Work analysis is the systematic process of collecting information about work activities, the attributes of the worker that enable work, and the environment in which the work occurs (Sackett & Laczo, 2003). In general, the goal is to document what is done, how it is done, and where it is done. Given the simplicity of this definition of work analysis, one might assume that conducting work analysis is an equally straightforward endeavor; it is not. Work analysis exhibits many differences based upon the discipline and purpose for which it is being conducted.

## HISTORY OF WORK ANALYSIS

In order to better understand the diverse nature of work analysis and its uses, a brief review of its history is warranted. Several authors have contributed to chronicling the history of work analysis and the goal of this chapter is not to repeat the excellent work that these authors have done, but rather to point the reader to references that provide the detail not covered here. Uhrbrock (1922) provided the first history of job analysis and linked the practice to an organization's strategic changes. Many years later, *The Job Analysis Handbook for Business, Industry, and Government* (Gael, 1988) included chapters on the history of job analysis in general (Primoff & Fine, 1988) and job analysis in military settings (Mitchell, 1988). In 1996, Mitchell and Driskill updated the handbook chapter related to military job analysis with an emphasis on the theory of job analysis (Wilson, 2007). As part of his "Introduction to a New Journal," Cunningham (2000) provided biographies for many of the significant contributors to the field of work analysis. In doing so he affords the reader a historical perspective that includes where individuals worked, their research, and the methodologies they utilized.

The most recent history of work analysis comes from Wilson (2007) as part of the *Historical Perspectives in Industrial and Organizational Psychology*. Whereas other histories of work analysis focus on the specifics of various individuals and methodologies, it is my opinion that Wilson's depiction of the various *schools of thought* provides the best organizing framework for understanding the history of work analysis and how we have developed current practices. What follows is a brief summary of these *schools* as presented by Wilson (2007).

- *Elemental Molecularists* make up the oldest school of work analysis. These individuals were concerned with understanding work at a very detailed level for the purpose of reducing inefficiencies. This school of work analytic thought is frequently associated with scientific management (Taylor, 1911).
- *Task Analytic Molecularists* break down work into tasks that have specific actions, objects, and intended outcomes. Still used in many settings, this level of detail is especially important for certain human resources functions (training design), military training, and for many Americans with Disability Act (ADA)–related concerns.
- Sidney A. Fine is considered the father of the *Functionalist* school of work analysis (Fine, 1955; Cronshaw, 2012). The *Dictionary of Occupational Titles* (DOT; U.S. Department of Labor, 1977) is a seminal application of functionalism in that it provides data about the context of work, focuses on the attributes of workers required to do work, and provides rationally derived data at varying levels of specificity.
- *Generalists* are credited with emphasizing the importance of developing a common metric for use in describing all work. Ernest J. McCormick and his students are the founders and best-known proponents of the Generalist model (McCormick, Jeanneret, & Meacham, 1972); the Position Analysis Questionnaire (PAQ) is an

empirically developed work analysis instrument that was designed for covering the entire workforce.

- *Taxonomists* focus on understanding work by either focusing on the human attributes required for work (Caughron, Mumford, & Fleishman, 2012; Fleishman, 1975; Fleishman & Mumford, 1991) or generalized work behaviors as descriptors of work. As with the Generalists, both these methods focus on finding a common language for describing the nature of work; however, Taxonomists seek to do so in a manner that provides more detail than that provided by the Generalists but less organizationally specific detail than the Task Analytic or Molecularists camps.
- *Ergometricians*, as presented by Wilson, do not represent a true school of work analysis, but rather the movement toward evaluating the quality of work analytic data. With so many different schools of thought, and the accompanying methods and models employed, systematically evaluating the quality of data becomes very important. Given the significant impact work analysis data has on the lives of those in the workforce, an emphasis on its quality and utility is fully warranted.

Despite the many uses for and schools of thought related to work analytic data, there exists one overarching common goal—a product that has utility for the end user, provides understanding of the nature of work as it is performed, is psychometrically sound, and ultimately is legally defensible. In order to achieve these ends, one must consider several methodological questions before embarking on work analysis.

## METHODOLOGICAL CONSIDERATIONS IN WORK ANALYSIS

Although industrial psychologists seldom agree on what the process of work analysis should be, most concur that the process is every bit as important as the outcomes (Harvey, 1991; Morgeson, 2007; Morgeson & Dierdorff, 2011; Sackett & Laczo, 2003; Sanchez & Levine, 2001; Wilson, 2012). While there are many issues to be considered, the primary areas of concern include (a) the source(s) of information; (b) the method(s) of data collection; and (c) the level of detail at which data collection should be conducted.

### *Sources of Work Analysis Information*

Just as there are numerous uses of work analytic data, there are also several sources of work information. We refer to these individuals as our subject matter experts (SMEs). Which SME is best is not a cut and dry question; the appropriateness of the source is dictated by the goals of the analysis and the nature of the work to be analyzed (Guder, 2012).

#### Incumbents

Incumbents are those individuals that currently hold the job of interest, and as such are typically considered to be an excellent source of information about the requirements and context of work. Despite their knowledge of how a job is performed, there are still potential areas of concern. For example, it is important to choose incumbents who have diverse years of experience in the job because those who are newer may spend more time on different tasks, have less discretion, and may experience different performance expectations than their more experienced peers (Borman, Dorsy, & Ackerman, 1992; Guder, 2012; Landy & Vasey, 1991). Although incumbents may provide highly accurate data about what they *do* on the job, they may not be the best source of information

regarding the knowledge, skills, abilities, or other attributes (KSAOs) required (Guder, 2012; Harvey, 1991). Not only are these more complex inferences, but incumbents may also feel motivation to exaggerate or overstate requirements that are not easily verified and/or are associated with desirable outcomes (Baumeister, 1989; Morgeson & Campion, 1997; Morgeson, Delaney-Klinger, Mayfield, Ferrara, & Campion, 2004).

#### Supervisors

Those who oversee the work in question represent another common source of data for work analysis. In particular, they may possess more insight into the KSAOs associated with successful performance and should be less impacted by self-presentation strategies (Morgeson & Campion, 1997; Morgeson et al., 2004). However, data from supervisors typically are costly (in terms of time and resources) to an organization, may not present a full view of how work is accomplished, or may focus on a desired way of doing work as opposed to the reality of work. As such, the use of supervisors is typically recommended as an adjunct to incumbent data sources.

#### Work Analysts

Individuals in several fields (industrial organizational psychology, rehabilitation health care, vocational experts, etc.) may be trained to conduct work analysis. Although there are significant benefits to using analysts (trained in the language of work analysis tools, less likely to inflate ratings, better identification of KSAOs), their lack of in-depth job knowledge and the expense associated with familiarizing them may make them untenable in many organizational settings (Guder, 2012).

In the end, there is no one perfect source of data for work analysis; it varies depending on the project. However, key concerns should always be whether raters are adequately familiar with the work to be analyzed, whether raters are able to effectively utilize the data collection tools, and whether or not the raters are sufficiently motivated to provide accurate work-related information (Harvey, 2012a). When viable, an approach that utilizes a trained analyst who works with both incumbents and supervisors to fully understand and document the requirements and nature of work is ideal.

### *Methods of Data Collection*

Just as each of the sources of data have specific advantages and constraints, there are numerous methods for collecting work analytic data and each is a viable alternative given the dictates of a given project. In this section, the most frequently utilized methods of data collection are covered: observation, questionnaires, interviews, and several secondary sources.

#### Observation

If you polled 100 work analysts, almost all would attest to the importance of observing incumbents in the workplace as a means of collecting work analytic data. Only when onsite at a place of employment can you literally weigh the packages that must be lifted, count how many flights of stairs must be climbed, and witness the diverse nature of interactions with others that are required in the process of work. This is not to say that

observation alone is adequate; some critical components of work may not occur on a daily basis (think of financial budgeting) and we all know that being observed impacts how we act (remember the Hawthorne effect). However, when combined with a comprehensive, structured questionnaire or checklist, observation is an excellent tool for collecting information about work.

### Questionnaires and Checklists

A significant advantage of questionnaires is that they can be given to individuals and groups of incumbents and/or supervisors, and can be administered in myriad forms (verbally, paper and pencil, email, website, etc.). What is important when choosing or developing a work analysis questionnaire is content coverage; does the questionnaire adequately capture all aspects of work that are important to the project at hand? For example, if one is interested in training for a manufacturing facility, a questionnaire will likely need to cover all of the tasks performed on the job; however, if the purpose of analysis is to identify essential functions for ADA purposes, the questionnaire will need to not only identify and measure all work activities but also use a valid method for identifying which activities are essential and cannot be accommodated while fully describing the work context.

Because questionnaires and checklists provide significant efficiency when evaluating numerous job titles and/or incumbents, many state agencies and private organizations have developed standardized work analysis questionnaires. These have the benefit (typically) of having been vetted for comprehensiveness, developed for purposes of documenting essential functions, and having been tested for reliability and validity. This helps to ensure that they will provide not only utility but also legal defensibility. For those interested in developing their own, the reader is referred to the Van De Voort and Whelan chapter within the *Handbook of Work Analysis* (Van De Voort & Whelan, 2012).

### Interviews

According to Van De Voort and Whelan (2012), a work analysis interview is "a meeting between two or more people for the purpose of exchanging information about a job or a series of jobs" (p. 42). Frequently, one of these individuals is a work analyst and the others are incumbents or supervisors; hence, the advantages and constraints previously discussed are immediately evident. An advantage of an interview is that it provides the opportunity to ask questions and seek clarification about the nature of work that might have been conveyed via other means (questionnaires, observations, etc.); however, interviews are time consuming and can require that the interviewer be skilled at facilitating groups of diverse individuals who may present varying descriptions of work. They also may not be viable when work is geographically dispersed. Despite these drawbacks, the opportunity to actually question those that know the work best is typically seen by analysts as a very important part of analyzing work.

### Secondary Sources of Data

Given the work-intensive nature of analyzing work, it is not surprising that many individuals incorporate secondary sources of information into their projects. Secondary sources, broadly defined, include external sources that provide

supplemental data about work that is performed (Dierdorff, 2012). These sources may be used in several ways; they may be used to familiarize analysts with jobs before a new project is commenced, they may serve as the basis for developing a structured questionnaire, or they may create a frame of reference against which new jobs are designed.

There are several types of secondary sources which are frequently used for data collection. Common sources include employment advertisements, training documentation, and existing position descriptions. There are also federal and state-maintained occupation information systems including the U.S. Department of Labor's Occupational Information Network (O*NET) and the DOT. In addition, private vendors operate informational databases specific to industry; examples include SkillTRAN and OccuBrowse, which provide software and internet-based services for rehabilitation, forensic, and vocational purposes (OccuBrowse, 2012; SkillTRAN, 2012).

Just as using a mix of SMEs can yield the most accurate description of what work entails, integrating multiple methods of data collection can be advantageous, too. When circumstances permit, an ideal model would likely include a trained work analyst reviewing secondary source data, collecting structured questionnaire data from SMEs, and observing the work in progress with an opportunity to interview SMEs for clarification. The outcome goals of the final product and constraints of the organizational setting will both dictate what is actually feasible.

### *Level of Data Detail*

How specific one should be when collecting work data is largely a function of your goals (Do you need data that is organizationally specific or must it be cross-job relative?) and your resources (more detailed data tend to lead to greater costs and timelines). As Wilson (2012) says, "… you should be only as specific as you need to be to support the purpose of the analysis" (p. 8). However, that does not provide much guidance on what options exist. In truth, the options very closely parallel the schools of thought detailed in the History section of this chapter. At one end, data can be collected at a very elemental level; this is frequently important to efficiency experts. At the other end of the spectrum, data can be collected that are extremely holistic and occupationally oriented; this makes sense for economists. In the middle is where the vast majority of work analysis projects that are of interest to practitioners fall; we need data that allow us to understand how work is truly performed, and we want it measured on a scale that minimizes inference, maximizes verification, and has high utility. This points to work being measured via descriptors such as *tasks, generalized work activities,* or *duties*. The distinctions among these descriptors are not clear-cut in the field of industrial psychology; tasks are the most specific of the three and frequently are organizationally specific (and therefore may not allow for comparisons across jobs) whereas work activities (i.e., "communicates with clients" or "lifts up to 10 pounds above shoulder height") and duties (i.e., "budgeting") are less specific and typically do generalize across job titles and organizations. Although some disagreement exists within the field, the collection of detailed data is typically preferable to more holistic descriptors (Gibson, Harris, & Harvey, 2007; Fleishman & Mumford, 1991). Detailed data can be aggregated into higher-level constructs if needed and provide most analysts with the types of data that are useful for activities such as transferable skills analysis (TSA), training, and work design/redesign.

## SYSTEMS OF WORK ANALYSIS

The recently published *Handbook of Work Analysis: Methods, Systems, Applications, and Science of Work Measurement in Organizations* (Wilson, Bennett, Gibson, & Alliger, 2012) devotes an entire section to the numerous systems of work analysis that exist. As with the methodological questions enumerated earlier, the answer to "Which system is the right one for me to use?" is dependent on the answer to another question, "For what purpose are you conducting your work analysis?" (Gibson, 2012a). Brief descriptions of the traditional categories of work analysis systems are reviewed first, followed by a summary of several well-known, proprietary systems. Readers are directed to the handbook for more detailed coverage of the numerous systems of work analysis.

### *Task Analysis*

Considered by many to be the fundamental work analytic system, task analysis focuses on the accomplishment of a single piece of work and the relationships (temporal and/or spatial) among task activities (Gillan, 2012). According to Diaper and Stanton (2004), there are several approaches to task analysis and no single best method for every user or circumstance exists. However, the process of identifying discrete pieces of work (creating a task list), rating them on scales such as frequency, duration, amount, or criticality, and summarizing into a usable format is believed by many to be the "only" right approach to work analysis (Gibson, 2012a).

### *Generalized Work Activities/Dimensions Analysis*

Similar in process to task analysis, but focused on a level of data that is moderate in specificity and allows for comparisons across different job titles, work activities (or dimensions) are the basis of most commercially available standardized work analysis questionnaires. According to McCormick, Jeanneret, and Meacham (1972), there exists a relatively small set of general work behaviors that apply to all jobs and one can describe all jobs in terms of: generalized work activity analysis describes jobs using these common taxonomies of descriptors (Gibson, 2012b). One recurring frustration for work analysts is the distinction (or lack thereof) between tasks and work activities; Harvey (1991) notes that this distinction is not always readily apparent. Theoretically, there *should* exist several discrete tasks that map to each work activity; the reality is that work activities vary in terms of specificity and some work activities and tasks are identical (i.e., "answers multi-line switchboard").

Several generalized work activity/dimension instruments exist and are commercially available. Although varying in focus and level of specificity, all have the common goal of describing work in terms of a common language and revealing commonalities across jobs (which is useful for activities such as transferable skill analysis and job matching); the PAQ, O*NET, Fleishman Job Analysis System (F-JAS), and Common Metric Questionnaire (CMQ) (all described below) fall into the category of generalized work activity/dimension systems of work analysis.

### *Context Analysis*

An understanding of the environment in which work occurs is the goal of context analysis. In the world of work, the context of work can have important implications for understanding working conditions, occupational hazards, and even worker productivity

(Harman, 2012). Despite its importance, context analysis has frequently played second fiddle to the identification of work activities and requirements (Dierdorff, Rubin, & Morgeson, 2009). However, several existing work analysis systems do seek to gather information regarding the situational opportunities and constraints that impact how work is performed; the U.S. Department of Labor's Functional Job Analysis (DOL FJA; U.S. Department of Labor, 1972) includes descriptors of the physical work environment, the PAQ includes questions related to both the physical and social work environments, and the CMQ includes in excess of 45 questions aimed at measuring different aspects of work context (Harman, 2012). Although not as fully researched and practiced as the identification of work tasks and activities, a better understanding of the context of work is important for many work analysis practitioners.

### *Cognitive Task Analysis*

An emerging area in work analysis is the analysis and documentation of the knowledge and cognitive processes associated with the performance of work (Gibson, 2012b). Cognitive task analysis is defined by Rosen, Salas, Lazzara, and Lyons (2012) as "a broad set of tools, techniques, and approaches for eliciting, analyzing, and representing the knowledge and cognitive processes involved in task performance" p. 185). Central to the process of cognitive task analysis is knowledge elicitation (Rosen et al., 2012): having SMEs verbalize the mental processes they utilize when performing various work activities. Once a list of processes is compiled, the analysis proceeds and ultimately output is represented in a format that has utility for the end user. By its very definition, one senses that cognitive task analysis is not an easy thing to do; whereas tasks and work activities are things we can see and document, cognition and knowledge are not. Yet, as the world of work becomes increasingly knowledge oriented, we must develop methods of documenting these requirements, too.

### *Personality-Based Work Analysis*

Although many organizations use personality measures in the workplace, most structured work analysis tools do not measure personality and many industrial psychologists question their appropriateness in the field work analysis (Foster, Gaddis, & Hogan, 2012; Guion, 1992). Despite this, when asked to describe work, many SMEs do so in terms of personality constructs and thus the argument for a worker-oriented analysis of personality constructs has arisen. Personality-based work analysis does utilize a common language for describing jobs (one that is tied to the constructs found on a personality test); however, it collects data that is more macro in scope than other generalized systems (Foster, Gaddis, & Hogan, 2012). Data of this type can be useful for applications such as vocational counseling and job matching; however, practitioners are cautioned to seek out well-validated, psychometrically sounds systems if pursuing this type of analysis.

### *Well-Known Systems of Work Analysis*

Having reviewed the traditional categories of work analysis, the next section briefly describes several well-known and frequently used systems in both private and government practice.

### Functional Job Analysis

Developed and refined by the late Dr. Sidney A. Fine, FJA identifies task-based processes necessary for work (Cronshaw, 2012). In FJA, the task is recognized as the basic unit of work and FJA is conducted using a highly structured approach utilizing trained analysts and recognizing the components of data, people, and things as underlying dimensions of all work. According to Mitchell, Alliger, and Morfopoulos (1997), the FJA is the best work analysis system when compliance with ADA is an issue.

### Occupational Information Network

Developed by the U.S. Department of Labor to replace the DOT, the O*NET is both a system for collecting work analysis data and a repository of data that can be used as a secondary source (Levine & Oswald, 2012). The O*NET describes work along six broad domains including worker characteristics, worker requirements, experience requirements, occupational requirements, workforce characteristics, and occupation specific information such as tasks, tools, and technologies. Despite debate in the research literature, the O*NET represents a significant tool in career exploration and vocational counseling domains.

### Fleishman Job Analysis Survey

Focused on documenting the abilities that are required for work, the F-JAS is a general work dimension system that measures work using a taxonomy of 73 human abilities (Caughron et al., 2012). The F-JAS is based upon three interrelated pieces—a taxonomy of human abilities, a task-anchored scale to link jobs and human abilities, and the actual rating procedure used for gathering data; reports for reliability vary based upon the type of position and SMEs used from 0.66 to in excess of 0.90 (Hogan, Ogden, & Fleishman, 1978; Romashko, Hahn, & Brumbach, 1976). As with other moderate-specificity systems, the F-JAS provides the ability to make cross-job comparisons.

### Position Analysis Questionnaire

One of the most highly used and researched general work activities systems, the PAQ was developed by McCormick et al. (1972). The PAQ includes 194 items that examine work attributes such as information input, mental processes, work outputs, relationships with people, and job context on scales including importance, time, and difficulty (Gibson, 2012b). Although concern exists over the PAQ's required college-graduate reading level and its lack of applicability to professional or managerial occupations, the PAQ has been found to have high reliability and is frequently used for blue-collar and manufacturing jobs.

### Common Metric Questionnaire

Utilizing absolute scales to describe work on cross-job relative activities, the CMQ is a relatively new work analysis system. The CMQ requires an eighth-grade reading level and includes items that are appropriate to work from manufacturing to executive levels (Harvey, 1993). CMQ collects data that are more abstract than tasks but significantly less

abstract than many other existing systems. Despite the relatively large number of item-level ratings that are present, the system is administered electronically in a computer-adaptive manner that minimizes time and resources (Gibson, 2012b).

#### Quantitative Job Demands Analysis (QJDA)

The QJDA examines and quantifies the physical demands that are associated with work. The QJDA process begins by quantifying the percent of the job spent in each essential job function. Each function is then videotaped or observed to determine the percent of that function spent performing various physical demands. The weights handled, forces exerted and distances walked, crawled, and so on are also measured. The environmental conditions and personal protective equipment are also noted. The interrater reliability of the QJDA process has been studied in conjunction with the U.S. Department of Labor with results described in an Executive Summary (reference available through ErgoScience). The QJDA is specifically designed to facilitate writing work descriptions with ADA and EEOC-compliant terminology and has been used in drafting post-offer and return-to-work plans, development of transitional-duty plans, and in other rehabilitation specific programs (ErgoScience, 2012).

## APPLICATIONS OF WORK ANALYSIS

When work analysis is conducted for traditional human resources purposes, the typical focus is on developing a description of the work that facilitates strategic recruiting and selection, effective training design, performance management, compliance with the ADA, and equitable compensation systems (Biddle & Kuthy, 2012; Doverspike & Arthur, 2012; Harvey, 2012b; Hurtz & Wright, 2012; Roch & Williams, 2012; Surface; 2012). However, in the vocational rehabilitation fields, work analysis may serve very different purposes.

### *Essential Functions Identification*

They key to recruiting, selecting, training, and retaining *any* workforce is an understanding of the requirements of work. In order to facilitate the employment of individuals with disabilities, identification of the essential functions of work is both imperative and legally mandated.

The term *qualified individual with a disability* refers to someone with a disability, who, with or without reasonable accommodation, can perform the essential functions of work (Biddle & Kuthy, 2012). Accommodation of qualified individuals is a necessary aspect of including individuals with disabilities in the workplace (Davis, 2005). Work analysis is the means by which essential functions are determined and is a primary source of information regarding what accommodations might be viably made. Under ADA (1990; Section 1630.2[n]), essential functions are described as: (a) performed frequently or make up a significant portion of work time; (b) have severe consequences if not performed or are performed incorrectly; (c) not performing would fundamentally change the job; (d) limited numbers of employees among whom the work can be distributed; (e) highly specialized and requires an incumbent with specific expertise. Work analysis not only helps identify these essential functions, it also identifies those duties which are assignable to others and nonessential (Biddle & Kuthy, 2012).

### Vocational Counseling

In the simplest sense, vocational counseling is about helping individuals find work. When working with those who possess impairments, the process must include an understanding not only of the individual's characteristics but also a thorough understanding of the characteristics of work being considered; this is where work analysis plays a role.

One form that vocational counseling can take is that of *job matching*. According to Morgan (2008), job matching involves the assessment of the characteristics of a job seeker in relation to the requirements of work. The characteristics of the job seeker may be determined via a series of interviews and/or psychometric measures; the requirements of work are delineated via work analysis. When linked, a match may be found in areas such as work preferences (setting, physical activity, etc.), skills (written comprehension, mathematics knowledge, etc.), and other work requirements (physical, sensory, psychomotor, etc.). The better the match, the greater a job seeker's motivation toward long-term career planning (Morgan, 2008).

Return-to-work planning is another form of vocational counseling (Davis, 2005). In this instance an employee seeks to transition back to work after illness or injury. In order to facilitate this, the nature of the job is considered via work analysis and temporary work modifications are identified. These accommodations are designed to match the employee to work along the continuum of their recovery.

### Transferable Skills Analysis

When work is analyzed using cross-job relative scales and a common taxonomy of activities or behaviors, rehabilitation professionals are able to compare the existing vocational skills and capabilities of those who have acquired disabilities to the requirements of various occupations for purposes of job placement (Dunn & Growick, 2000; Lance, Griggs, & Gould, 2012). TSA has at its foundation three assumptions: (a) work performed in the past provides an individual with skills and attributes that will facilitate work in similar occupations; (b) the requirements of work are measurable via work analysis; (c) work that is similar to past work is more appropriate and will require less vocational adjustment (Field & Weed, 1989). When conducting TSA, vocational experts first document previous work history and identify relevant knowledge, skills, and ability associated with previous occupations. This profile, minus the deficiencies associated with disability, is then compared to the requirements of different, but related job titles via computerized search of existing government work analysis databases such as the DOT and O*NET or via occupational tools such as SkillTRAN or OccuBrowse. When database searches produce no matches or inconclusive data, the expertise of vocational experts gained through performing work analysis is relied upon.

### Work Modification

The modification of work may be either a proactive or a reactive process. From a proactive perspective, the analysis of work can identify areas of risk, danger, or other concerns and enable changes so as to prevent injury or disability from occurring (Domanski, Gowan, & Leyshon, 2008; Keyserling, Armstrong, & Punnett, 1991). Similarly, when anticipating the return to work of someone who has been injured or acquired a disability, work analysis can identify areas for change that prevent re-injury or new injuries

from occurring when returning to work (Lysaght & Shaw, 2010). Because overexertion injuries and disorders, such as back pain and carpal tunnel syndrome, are the leading cause of Workers' Compensation costs and disabilities claims, the recognition of potential stressors and modifications of the work environment to minimize their occurrence is critical (Keyserling et al., 1991).

Work modification can also result from making accommodations in order comply with ADA. These modifications may take the form of adjustments to the work context (allowing an individual to work in a quiet office, changes to work schedules), or the manner in which the work is typically performed (allowing a sit–stand option, providing assistive technology such as screen readers) (EEOC, 2012). In all instances, a thorough work analysis will help identify areas appropriate for modification so that individuals with disabilities may participate competitively in the world of work.

## CONCLUSION

Work analysis is a systematic process used to understand the nature of work—including the context in which it occurs, the primary tasks or activities associated with work, and the knowledge, skills, and abilities required for successful performance. Although there are many methodological considerations to be contemplated and numerous existing work analysis tools available to the practitioner, the methods chosen must be appropriate for the purposes at hand. For those in the fields of vocational science and rehabilitation health care, work analysis serves as a valuable tool that provides the basis for creating workplaces that are safe and inclusive and facilitating fulfilling employment of those with disabilities.

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# Chapter 17: Career Counseling With People With Disabilities

*SUSANN HEFT SEARS, ASHLEIGH JONES, AND DAVID R. STRAUSER*

***After reading this chapter, you should be able to:***

1. Explain how and why employment is central to an individual's life.
2. Define career counseling and explain the role of the rehabilitation counselor in the career counseling process.
3. Identify the stages of change (SOC).
4. Name and define the six statuses of the INCOME model and explain why statuses instead of stages are more appropriate for working with persons with disabilities.
5. Identify interventions that are commonly used in the career counseling process.

## EMPLOYMENT AND DISABILITY

Employment is central to one's identity, sense of achievement, and the overall quality of life. Employment status impacts each individual holistically, as it can determine the degree of economic independence, access to health care, and level of community participation (e.g., leisure activities) that one may experience and have access to. Meaningful employment not only affords an individual the ability to earn a living wage, it can have a positive psychosocial impact by increasing one's social role and level of community integration, which in turn can be leveraged to increase their roles in the communities they desire to reside in (Strauser, Wong, & O'Sullivan, 2011). Those who are engaged and active participants in their communities through employment and civic involvement will more likely experience a higher degree of overall emotional and psychological well-being in their life.

Economic forces, technological advances, and changes in requisite skills for employment require for all current and prospective employees from our current workforce to adjust to such demands. These continual changes in both the local and global economy

create new and ever-changing expectations. When disability is coupled with career and employment-related issues, the degree of complexity involved in preparing individuals increases—both in obtaining and in sustaining meaningful career development and employment. Acquired disabilities due to injury and new medical diagnoses can also impact one's current employment status and may require a career change. The relationship between the personality of an individual and their disability, the expectations from the work environment, and the attitudinal dynamics toward disability are multidimensional, ongoing, and changing. Therefore, the role of a rehabilitation counselor is essential and critical in working with persons with disabilities, as learning to cope and address these multifaceted issues are required for entering into and in sustaining employment over the long term.

## WHAT IS CAREER COUNSELING?

Work is central in the lives of people and is a primary way in which individuals define themselves (Blustein, 2008; Gottfredson, 2002; Super, 1969; Szymanski & Hershenson, 2005). The purpose of career counseling can be defined as providing the appropriate guidance and resources to individuals that will allow them to effectively strategize and develop the skills necessary for meaningful employment transition or in changing careers. The career counseling process further includes the identification of appropriate training and education for a given occupation or career of choice. Historically, the goal of the vocational rehabilitation (VR) system is to address the development, employment, and vocational behavior of individuals with disabilities (Lustig, Strauser, Rice, & Rucker, 2002; Patterson, Szymanski, & Parker, 2005; Wright, 1980). Rehabilitation counselors have a vital role in career counseling persons with disabilities by assisting the individual in making effective decisions. Their goal in the career-counseling process is to serve as the primary facilitator/advisor addressing the fundamentals necessary in obtaining meaningful employment and in developing the needed abilities to navigate systems, which include the complex interaction between work, society, and the individual (Strauser, Wong, & O'Sullivan, 2011). By actively intervening, the rehabilitation counselor provides needed information by promoting the development of self-confidence and by facilitating problem solving (Wright, 1980). In the rehabilitation counseling process, the individual has the final authority and responsibility of decision making (Wright, 1980). When persons with disabilities receive the tools and guidance to manage their own career behaviors, the likelihood for them to obtain new skill development increases and can lead to a greater sense of empowerment for the individual.

## FACTORS IMPACTING CAREER DEVELOPMENT AND EMPLOYMENT OF PEOPLE WITH DISABILITIES

In conceptualizing the problems associated with the career development process and low employment rates of persons with disabilities in the United States, there are a wide variety of factors that contribute to this issue at the individual, societal, and policy levels. At the individual level, persons with disabilities may have a lack of awareness of the relationship between the role of an accommodation and the functional limitations of their disabilities. This illustrates the need for persons with disabilities to have a greater understanding of the possible ramifications of disclosure at various stages of employment. Advising individuals on how to place this knowledge

into practice is essential so that it can be transferred into practice (Friehe & Aune, 1996). Typically, individuals with disabilities are not always provided with the necessary opportunities to learn and develop self-advocacy skills and self-understanding of their individualized needs. Consequently, the relationship between one's disability and the role of their needed accommodations is not always clearly understood by the actual individual. Social experiences and level of participation in the classroom in the formative years have been found to be less for individuals with disabilities when compared to those without disabilities (Eriksson, Welander, & Granlund, 2007). Research suggests that such experiences in the formative years can serve as the foundation for later vocational identity development. In a study of young adult cancer survivors, Wong and Strauser (2013) found that the younger the age of onset of disability, the greater the difficulties associated with vocational identity later in life. Furthermore, Strauser, Wagner, Wong, and O'Sullivan (2013) found that individuals with an onset of central nervous system (CNS) cancer between the ages of 6 to 12, experience higher degrees of career indecision-making later in life when compared to individuals who experience an onset of cancer before or after this time period in childhood. According to Erikson (1985), this time period is referred to as the Industry versus Inferiority stage of development. Both studies suggest that there are critical time periods consisting of social experiences that can contribute to vocational identity development.

At the societal level, disability continues to carry a stigma despite its high and growing prevalence. As a consequence, employees with disabilities may not choose to disclose out of fear of being viewed by their employers as unmotivated, irresponsible, and incompetent. Companies are increasingly viewing the importance of reaching out to qualified applicants with disabilities as a part of their diversity recruiting practices; however, research has also suggested that HR and hiring managers were not overly enthusiastic about people with disabilities as reliable and productive employees (Chan et al., 2010; Fraser et al., 2010).

At the policy level, an individual's hesitancy in obtaining employment may be out of fear of losing disability benefits (Kregel & O'Mara, 2011), as they do not believe that the system supports their ability to be meaningfully employed, and the impact of losing one's disability benefits due to employment have greater negative consequences than being unemployed. Furthermore, employees with disabilities, particularly those with nonvisible disabilities, still experience significant reservations in the decision on whether to disclose their disability status to their employer despite the existence of the Americans with Disabilities Act, 1990 (ADA). This may be due to the lack of understanding of one's rights under the ADA (Friehe & Aune, 1996; Kim & Williams, 2012), as well as fear of differential treatment as a result of disability disclosure (Madaus, 2008).

## THEORETICAL FOUNDATIONS OF CAREER COUNSELING PEOPLE WITH DISABILITIES

Understanding career and vocational strategies to facilitate change provides rehabilitation counselors with guidelines to understand career problems and facilitate effective career choices (Strauser, Wong, & O'Sullivan, 2011). A strong grasp of these will allow practitioners to work more effectively with individuals and families to promote self-determination and independence. Given the demands and life changes that accompany disability, ongoing support and guidance of the individual are needed in managing the pursuit of employment. Research in rehabilitation counseling notes the importance of reducing premature termination and increasing active participation through increasing the individual's motivation to change (Chan, Miller, Lee, Pruett, & Chou, 2004). The sustainment of the individual and rehabilitation counselor relationship is central for

successful changes to occur. During the rehabilitation process preparing the individual for change is of great significance (Chou, Ditchman, Pruett, Chan, & Hunter, 2009) and requires long-term time and commitment. Rehabilitation counselors can incorporate into their advisement sessions with individuals the SOC model to aid in the process of change. Based on the individual's readiness and motivation to change, they can be categorized into different SOC and thus interventions should be tailored to the individual's level of readiness (Chan et al., 2004). Another counseling style that involves fostering the individual's motivation and initiative, promoting self-efficacy, and exploring pros and cons related to goal achievement is the motivational interviewing (MI) technique (Miller & Rollnick, 1991). MI focuses on the individuals experiences, values, goals, and plans by promoting the individual's choice and responsibility in implementing change (Wagner & McMahon, 2004). MI can assist with resolving individuals' ambivalence about change and to increase motivation so change can occur. The glue, so to speak, that helps the counselor and individual stay together is their ability to form an effective relationship through developing a strong working alliance (WA). WA is a collaboration between the individual and counselor where each makes an equal contribution to the counseling relationship based on the development of a bond that leads to shared commitment to the goals and tasks of counseling (Bordin, 1979). The following sections will address each concept in more detail demonstrating each ones's importance and applicability to the INCOME model.

## *Stages of Change Model*

The SOC model provides a comprehensive framework with which to understand and describe the change process of the individual (Connors, Donovan, & DiClemente, 2001; Chou, et al., 2009). The SOC model has a strong theoretical and empirical base and thus is applicable to diverse populations as a general model of change with practical applications in the field of rehabilitation counseling (Petrocelli, 2002; Chan et al., 2004).

When making a major lifestyle change according to the SOC model, people move through five distinct stages (Prochaska & DiClemente, 1983). Precontemplation (the individual is not intending to take action and may be unaware or in denial that his or her behavior is problematic), contemplation (the individual is starting to recognize his or her behavior is problematic and is considering change), preparation (the individual starts to increase his or her commitment to change and may begin taking small [initial] steps to change behavior), action (changing behavior by making specific overt modifications in altering his or her problem behavior), and maintenance (sustaining the new behavior for a while and working to prevent relapses). It is expected that an individual will circle back between stages or remain at a particular stage for some time. The stage one is in determines the degree of readiness he or she has to make the necessary changes for successful transition to employment.

Each stage describes certain individual behaviors/characteristics and has implications for interventions (treatment strategies). An example of a 19-year-old male with a physical disability who is navigating through the different SOC is given here.

### Precontemplation

Casey is a 19-year-old male with a congenital, physical disability who exhibits low motivation to discuss the topic of future goals and meaningful employment. His parents are currently his primary caregivers and want their son to enroll at the local community college. Casey was provided with little guidance throughout high school regarding

post-graduation transition, and his parents and teachers made the majority of decisions for him; therefore, Casey's degree of confidence in making autonomous decisions about his future is low. The idea of staying local seemed like the only option, and his vocational interest level was extremely limited due to lack of work experience and exposure to careers.

#### Contemplation

Casey is increasingly becoming frustrated with the fact that he does not have the same degree of autonomy as others his age, and is starting to exhibit an interest in becoming more independent from his parents. He and his parents have been increasingly argumentative about his future goals, resulting in Casey starting to explore the idea of living on his own. Casey's parents are against this idea for now. Casey realizes that he will need to investigate options for becoming meaningfully employed, in order begin to experience a greater degree of independence from his parents.

#### Preparation

Casey starts conducting basic job searches on the web for the types of job vacancies in the local area; he finds that the majority of occupations he is interested in require some degree of previous work experience and even higher education. He does find computer work interesting, and sees that some of the job listings for working with computers require at least a 2-year degree. He then decides to check the local community college's programs online, and finds that they have a 2-year-degree program in network systems administration.

#### Action

Casey looks up the information online for the admissions office to find out how to apply and completes the online application process. He then decides to email the website requesting more information on how to pay for college and disclosed he has a disability. He receives an email back from the financial aid office with instructions and contact information for the campus disability services and state VR office. Casey then finds out that he is accepted through the community college admissions process.

#### Maintenance

Casey begins classes and finds the adjustment to be tremendous. He begins to question his decisions and is overwhelmed. With much trepidation, he musters the courage to at least approach his disability services advisor and discloses that he is struggling. His disability services advisor encourages him to speak to the instructor of one of the courses he is particularly struggling with. They spend time rehearsing how he is going to approach the instructor with his concerns. He goes ahead and meets with the instructor after the next class period, and the instructor informs him that there were computer lab assistants available to clarify information and to review with students for his class. Casey shows up during the open lab hours and obtains the needed assistance for his assignment.

### Motivational Interviewing

MI is a client-centered counseling approach designed to strengthen an individual's motivation by focusing on the individual's experiences, values, goals, and plans while promoting individual choice and responsibility in implementing change (Miller & Rollnick, 1991).

MI consists of four basic principles: (1) express empathy, (2) roll with resistance, (3) develop discrepancy, and (4) support self-efficacy. The first principle, express empathy, allows the counselor to, through nonjudgmental listening, understand the individual's impressions, perceptions, feelings, desires, concerns, and hopes and validate his or her point of view by creating an environment where the individual can explore and consider multiple options (Chou et al., 2009; Wagner & McMahon, 2004). In the second phase, roll with resistance, resistance to change happens when there are direct confrontations or threats to personal choice. Adherence to change can be enhanced by choice and exploration of issues and competing motivations of the individual is more likely to occur if the counselor realizes and accepts, instead of fighting against, the reality that the individual will have these competing motivations (Wagner & McMahon, 2004). Exploration of issues (change) is more likely to occur if instead of getting defensive when the individual has differing or even undesirable viewpoints, the counselor remains in harmony with the individual (Miller, Benefield, & Tonigan, 1993). In the third phase, develop discrepancy, to create change the individual needs to be able to explore discrepancies between current behavior and core values. The counselor's job is to gently direct this exploration and in turn the individual will benefit from exploring how his or her current behavior may be preventing him or her from reaching his or her desired goals, and how the process of change may increase his or her future satisfaction (Wagner & McMahon, 2004). In the fourth phase, support self-efficacy, by creating an environment that encourages hope and optimism the counselor is helping the individual gain confidence about making changes and achieving goals. Individuals may not make the effort to change, even if they desire to, if there is no hope for success (Wagner & McMahon, 2004). It is the counselor's job to promote this likelihood for success by reinforcing successive approximations, affirming success (even small ones), and reframing failures as intermediate success (Bandura, 1997).

Developing a strong WA can help the counselor create an environment where an individual can experience being accepted. Using the principles of MI to encourage optimism and hope by facilitating a supportive environment can be accomplished by developing a strong alliance.

## *Working Alliance*

WA is a collaboration between the individual and counselor where each makes equal contributions to the counseling relationship based on the development of a bond that leads to a shared commitment to the goals and tasks of counseling (Bordin, 1979). Research has suggested that individuals who experienced high levels of WA with their VR counselor had greater satisfaction with their rehabilitation services and experienced increased vocational outcomes (Lustig, Strauser, Weems, Donnell, & Smith, 2003). A good counseling relationship is based on the fundamental principles of the WA: (1) developing a strong relationship with the individual, (2) identifying reasonable and obtainable goals, and (3) identifying the tasks need to achieve the identified goals (Donnell, Lustig, & Strauser, 2004; Lustig et al., 2003; Strauser, Lustig, & Donnell, 2004). WA consists of three interdependent components: goals, tasks, and bonds. Goals are the

outcome of the counseling process and are what the individual hopes to achieve/gain. Developing goals can assist in the counselor–individual bond. Tasks are those that need to be done in order for the individual to reach his or her goals. Tasks are agreed upon and engaged in by both the counselor and individual while in counseling. Bonds form between the counselor and individual through trust and confidence that the tasks will lead the individual to completing his or her goals. Having a feeling of common purpose and understanding can be a way of expressing a bond (Bordin, 1979, 1994).

In the counseling process, problems with the development of WA can stream from how the individual functions outside of counseling. Using the principles of MI to encourage optimism and hope by facilitating a supportive environment can be accomplished by developing a strong alliance. The counselor can assist the individual in overcoming "self-defeating thoughts and behaviors" while also giving him or her a sense of ownership by reframing failures as intermediate successes. MI focuses on using empathy and unconditional positive regard to explore the individual's present maladaptive behaviors that may be out of line with his or her core values and expectancies (Chou et al., 2009). Developing goals together can strengthen the bond between the counselor and individual, and thus making the individual feel valued and cared about.

WA between the individual and rehabilitation counselor is imperative. The WA is the core element to facilitating change in individuals and can often be referred to as the glue that holds all strategies to facilitate change together. To assist in enhancing the individual's motivation to change the counselor can employ interventions such as MI. Assessing the individual's readiness for change is an important component of MI and can be used by counselors to facilitate movement through the SOC by matching their responses to the readiness level of the individual.

It is critical to establish and foster the individual–counselor relationship and is a necessary prerequisite for effective intervention development. The SOC model, WA, and MI can all be applied within the INCOME framework to guide the rehabilitation counseling service delivery to do just that. The practice of rehabilitation counseling is focused on bringing about positive behavior change and involves the development of new skills or improvement of existing ones. To accomplish this, the counselor must focus on maximizing the individual's ability to function independently in the environment by empowering the individual to be the change agent in his or her life. The relationship between the individual and the counselor as well as counseling are fundamental tools that rehabilitation counselors have in their repertoire to bring about effective and positive behavioral change.

## *INCOME Framework*

Given the diversity of disabilities and of the individuals with disabilities, existing theories of career development in the rehabilitation literature have limitations and have been questioned in their application to persons with disabilities (Conte, 1983; Szymanski & Hershenson, 2005). To date, no existing theory of career development adequately took into consideration the specific needs of individuals with disabilities, and therefore is questionable in their use in describing, predicting, or facilitating the career development of individuals with disabilities (Conte, 1983; Beveridge, Craddock, Liesener, Stapleton, & Hershenson, 2002). Questions have been raised about using theories and interventions for diverse segments of the population when they were not included in the development of said theories or interventions (Hershenson & Szymanski, 1992; Szymanski & Hershenson, 1998; Szymanski, Hershenson, Enright, & Ettinger, 1996; Szymanski, Enright, Hershenson, & Ettinger, 2003). Three factors related to the lives of

individuals with disabilities that limit the use of existing career and vocational theories to them have been identified: (1) limitations in early career exploratory experiences, (2) limited opportunities to develop decision-making abilities, and (3) a negative self-concept resulting from societal attitudes toward individuals with disabilities (Conte, 1983; Curnow, 1989). Several attempts have been made in the past 15 years to address these issues (Hershenson & Szymanski, 1992; Szymanski & Hershenson, 1998; Szymanski et al., 1996, 2003) and despite these efforts to develop a comprehensive theory, some have questioned this need given how diverse individuals with disabilities are. An alternative then would be to employ a framework to guide rehabilitation counselors delivery of VR services to individuals with disabilities (Beveridge, Craddock, Liesener, Stapleton, & Hershenson, 2002). The INCOME framework is an inclusive framework to assist career counselors in tracking and facilitating the career development of persons with disabilities (Beveridge et al., 2002). INCOME consists of six statuses through which individuals with disabilities can move: Imagining, iNforming, Choosing, Obtaining, Maintaining, and Exiting (Beveridge et al., 2002).

The construction of the INCOME framework was based upon career development theories that sought to be applicable to persons with disabilities (Super, 1957, 1990; Danley & Anthony, 1987; Dawis & Lofquist, 1984; Hershenson, 1996a, 1996b) and other theories that are intended to be applicable to diverse groups (Maslow, 1987; Bandura, 1986, 1997; Hackett & Bryars, 1996; Lent, Brown, & Hackett, 2002; Mitchell & Krumboltz, 1996). Several important factors should be considered when examining the INCOME framework. First, the INCOME framework uses the concept of career statuses, not stages, to address the heterogeneity of individuals with disabilities. Statuses are more flexible, allowing the individual to occupy more than one status at a time, statuses are not bounded by order or sequential progression, and statuses allow individuals freedom to skip and revisit as needed (Helms, 1995), thus eliminating the sequential progression, hierarchic integration, and stage resolution sequencing that limit application to the unique needs and development of individuals with disabilities (Beveridge et al., 2002; Kohlberg, 1968). Second, in each of the six statuses, one must consider the interaction of three factors: the individual, environment, and the general culture and subcultures within which the other two factors are located (Vondracek, Lerner, & Schulenberg, 1986). Finally, the application of the INCOME framework recognizes that the age of onset and the progressive nature of certain disabilities are factors that impact career development and vocational behavior and within each status the following three distinct subgroups of individuals with disabilities are recognized as having their own unique needs: pre-career onset, mid-career onset, and episodic disabilities.

### *The Six Statuses of the INCOME Framework*

*Imagining* is the status in which the individual develops an awareness that work, job, or careers exist, or that occupations or jobs that he or she were not aware of exist. The status has the following three substatuses: awareness (realizing that there is such a thing as work and that there are occupations that have direct significance to oneself), fantasy (playing doctor or police officer as a child or having adult fantasies [daydreams] about being in a different occupation or job), and reality-based imagining (restraining one's imagination to occupations or jobs that an individual believes that those are possible due to one's capacities, resources, and opportunity structure). Early childhood is when children become aware and begin to learn about the world of work from their families and as they get older through the media, school, and people they engage with in

their immediate environment. Children learn through observation that people engage in certain activities to make money, buy things, and define themselves. Through social learning, children also observe the reactions of people in their environment, resulting in the development of their own attitudes about work and careers. Imagining continues and can be present at any point in one's career. Fantasies and daydreams, as well as becoming aware of options they were not formally aware of, can occur in adolescents and adults. Those that occupy this status as children and adults derive meaning and consider their values regarding their conceptualization of work and careers.

*iNforming*: In the status of iNforming, the individual obtains information about one's self, the world of work, opportunities that exist within the environment, and one's cultural context. This status includes the individual developing work competencies (work habits and interpersonal skills); the acquisition of information about oneself and the world of work (provided by feedback they receive from their environment); and developing an awareness of cultural supports and barriers that exists in the environment. From the feedback one receives (from parents, peers, school, etc.), individuals form beliefs about both their abilities, existing opportunities, and cultural supports and barriers, resulting in the individual's career-related self-efficacy and outcome expectations. Therefore, career self-efficacy is determined by the complex interactions of individual, environmental, and cultural characteristics. If the individual believes that he is not good at math, then he will not pursue a career in engineering, even if this career matches the individual's interests and values. Thus, the environmental feedback one receives will serve as a strong indicator of the individual's career path.

*Choosing* is the status in which individuals integrate the information about themselves and the world of work and chooses occupations, jobs, or educational programs from those known to the individual at the time the choice is made. Basically, the individual is integrating the information from the previous statuses (Imagining and iNforming) and selects from among the known occupations. Occupational choice has multiple factors that interact during this status that mark (affect) the final decision or the direction of career development. The individual, when choosing an occupation, analyzes the fit between the environment and personality type, the fit between the individual's personal needs and values with the job's perceived benefits, and their decision-making style and chance. That is, the occupational choice is predicted by the information possessed by the individual and the interaction among these factors. The information obtained by the individual during the previous statuses influences this choice. The information that the individual has developed regarding himself and the world of work is filtered by his career self-efficacy and outcome expectations, thus influencing the individual's choice. Motivation for choosing is greatly impacted by if and how well the individual's basic needs (food and shelter) are met. If these needs are not met, an individual will not be motivated to satisfy other needs nor make occupational choices. It should be noted that while the Choosing status normally takes a logical decision-making approach, not all individuals make decisions this way. Thus, it is the counselor's job to be aware that for some individuals family can be a critical factor in choosing, while others may rely on chance, intuition, or impulse to guide their decision making.

*Obtaining*: The career choice made in the Choosing status remains a decision until the person obtains a job. In this status, the individual seeks and obtains a job ideally of their choice. The obtaining status can include job finding, networking, resume preparation, job-interviewing skills training, and all things that make up preparing for and implementing a job search. The broader environment is a major factor of the outcome in this status. The economy has a major impact on the availability of jobs. In addition, this status is influenced by the person's family, culture, and society. A person's involvement

in the job market can be influenced greatly by the individual's family situation as it relates to employment, cultural attitudes that may clash with work attitudes and behaviors, and societal attitudes such as prejudice against people with disabilities.

*Maintaining*: This status involves the process of adapting to, performing in, and sustaining a career (position and job). In this status, the work environment and the cultural context can either enhance or block successful outcomes. The individual's ability to maintain a job and perform the job successfully is dependent upon the correspondence between the individual and the work environment. The reality is that the work environment may require unanticipated adaptations and to keep a job, the individual must adjust to the work demands as well as the work environment must adjust to the individual. The individual must develop a plan and take into account issues such as transportation, time management, and medication management, as well as how to manage the day-to-day challenges likely to create stress on the individual.

*Exiting*: The sixth and final component of the INCOME framework involves the process of thinking about leaving or actually leaving one's current vocational situation. Exiting is not the final step in the INCOME model. An individual may be in the Existing status several times over the course of their career. Every time exiting or their desire to exit occurs, the individual may need to revisit previous statuses. Exiting encompasses not only getting fired or retiring but also being promoted to a different position or departing voluntarily from one's current position to enter a new work setting or even nonwork experiences. Factors that might cause an individual into involuntary Exiting status can include poor job performance, employer downsizing, or even potentially due to disability or medical-related issues. Such factors that may result in voluntary exiting could be lack of job satisfaction, lack of opportunities for advancement in one's present setting, or insupportable conditions in the workplace. These factors are dynamic and change throughout the individual's career and are influenced by the environment, psychological, social, and economic forces.

The individual ought to be taught how to negotiate these statuses so that they can engage in them independently and successfully without having to reenter the counseling process. Through advocacy, the counselor assists the individual to achieve her goals through participating in the individual's environments. The counseling session provides a natural forum for integrating advocacy into practice and training and thus leading to empowerment. As a result of this empowerment, the individual is able to cope with problems and concern resulting in a sense of self-efficacy thus equipping the individual with what she needs to handle similar problems in the future. A general overview of each status is presented in Table 17.1.

The following consists of three distinct subgroups that undergo essentially different career development process. Individuals with precareer-onset disabilities, midcareer-onset disabilities, and those with episodic disabilities have been discussed separately applying the INCOME framework.

### Pre-Career Onset

Individuals with pre-career onset of disability may experience greater degrees of social isolation and limited to no career-related opportunities. Callie is an 18-year-old female college sophomore with a T-12-level spinal cord injury. She is nearing the end of her sophomore year and will soon be required to declare a major. She is undecided about what to major in and what kind of career she wishes to pursue. She is highly motivated to find an on-campus job but does not know where to begin. Having an active social life is important to her and she enjoys meeting and being around people.

**Table 17.1** *The INCOME Framework*

| Statuses | Definitions | Content | Additional Considerations |
|---|---|---|---|
| Imagining | Developing awareness that careers exists; or that occupations not aware of exist | Consists of three substatuses: awareness, fantasy, and reality-based imagining | Those that occupy this status derive meaning and consider their values regarding their conceptualization of work and careers |
| iNforming | Obtaining information about one's self, the world of work, opportunities that exist within the environment, and one's cultural context | Developing work habits; gaining information about oneself and the world of work based on feedback; and developing an awareness of cultural supports and barriers that exists in the environment | The environmental feedback one receives will serve as a strong indicator of the individual's career path |
| Choosing | Integrating the information from the previous statuses and selects from among the known occupations | Analysing the fit between the environment and personality type; the fit between job benefits and personal needs and values; their decision-making style; and chance | Motivation can be impacted by lack of basic necessities (food and shelter) and decision making impacted by family, chance, intuition, or impulse |
| Obtaining | The individual seeks and obtains a job ideally of their choice | All things that make up preparing for, and implementing a job search (job finding, resume preparation, etc.) | The career choice made in the Choosing status remains a decision until the person obtains a job |
| Maintaining | Involves the process of adapting to, performing in, and sustaining a career (position and job) | Maintenance and performance are dependent upon the correspondence between the individual and the work environment | The individual must adjust to the work demands as well as the work environment must adjust to the individual |
| Exiting | Involves the process of thinking about leaving or actually leaving one's current vocational situation | Getting fired, retiring, being promoted to a different position or departing voluntarily to enter a new work setting or even nonwork experiences | May be in this status several times over the course of their career and every time exiting or the desire to exit occurs, the individual may need to revisit previous statuses |

In the Imagining status, the counselor will explore what kind of interests and experiences that Callie has/has not had during her primary and secondary education. This will provide a general assessment of the degree of understanding she has regarding her attitudes and interpretation of work. During the iNforming status, the counselor may encourage Callie to conduct research on existing careers that seem to be of interest to her. Activities may further include opportunities for her to speak to professionals currently in her identified careers of interest. A job analysis would be an additional component to assess the major job requirements and whether Callie is able to successfully complete these job requirements either with or without accommodations. Once Callie has compiled the necessary information on careers, she is now ready to explore the existing majors and required course work that coincides at her current college that are applicable to the career paths of interest. Once Callie decides on which major she

would like to pursue, she enters into the Choosing status. In the Obtaining status, Callie decides to write a formal resume and apply for an on-campus job in housing as a resident advisor. She is hoping to learn more about conflict resolution and demonstrating leadership in her living community on campus which are all experiences that will help her to develop vocationally. If Callie were to successfully secure the resident advisor position, she is now in the Maintaining status where she is required to adjust to her increased level of work-related responsibilities in addition to her academics. The following academic year, Callie decides to apply and is offered a semester-long internship program and decides to leave her resident advisor position. The semester-long internship site decides to extend a permanent position to her once she has earned her college degree. If she accepts this permanent employment offer, she would be entering the Exiting status.

#### Mid-Career Onset

Samuel is a 45-year-old steel worker who has experienced a significant back injury. Because his prognosis for a complete recovery is low, he is in need of a change in occupation. Samuel discloses to his counselor that he owns property in the country and enjoys the outdoors. Samuel is married with two teenage children; therefore, he is worried and preoccupied about what his next steps will be for a career. In the Imagining status, the counselor asks Samuel what was most gratifying about his years as a steel worker to find out more about his values in relation to work. The counselor finds out that he dreads the thought of working in an office environment and viewed physical labor as a steel worker as a gratifying part of his previous job.

The counselor further discovers that Samuel has experienced a degree of guilt and frustration associated with not being able to work due to his injury and has experienced periods of hopelessness. Another preoccupation is that he is worried that he will need to face a substantial pay decrease in other occupations. Additionally, the idea of having to move his family to another community is something he would like to avoid. In the INforming status, the counselor has Samuel complete an interest inventory to find out more about his interests. Based on his identified interests, Samuel was directed to the O*NET, a governmental website consisting of existing careers and he identified potential careers that appeared to be congruent with these interests. Samuel identified construction/building inspection as one of the new occupations that appeared interesting. It was further discovered that the local 2-year college offered additional construction management courses that would provide additional training for learning more about inspection codes and regulations. As a result, Samuel decides that this is a suitable goal to pursue and is now in the Choosing status. Upon completion of his training, Samuel began applying for jobs and found that he had to extend his job search to other communities. He further discovered that commute times might be longer than anticipated, and that he might have periods of travel to other places throughout the state. Additionally, he might have periods of travel to other places throughout the state. With persistence, Samuel was offered a position and is now in the Obtaining status. Once on the job, Samuel encountered some unexpected disability-related circumstances in which he is required to take periodic breaks throughout the day due to the ongoing, chronic pain associated with his back injury. In the Maintaining status, the incorporation of periodic rest breaks as a reasonable accommodation served to mitigate his pain throughout the day. Finally, after working successfully in his current position for a year, Samuel was promoted to upper management and is now supervising entry-level building/construction inspectors and therefore is now in the Exiting status.

### Episodic

Penny is a 30-year-old female with experience working as a social worker. She has a young daughter and recently filed for divorce from her husband. Due to the marital difficulties that eventually lead to her decision to divorce, Penny has experienced bouts with her depression diagnosis that had been previously controlled through treatment until recently. In the Imagining status, a counselor would assist Penny in thinking about how the role of work relates to her sense of identity and how the nature of her depression impacts this. For the past few years, Penny reports that she has worked part-time so that she could also spend time with her daughter during the week. She realizes that she will now need to work full-time so she can acquire medical insurance for herself and to cover the added expenses of moving to another place to live. Penny is concerned that the transition from working part-time to full-time will be overwhelming and sees her depression as persisting and her challenges ahead as insurmountable. In the INforming status, the counselor begins to assist Penny in developing short-term goals to address her immediate needs. The counselor is able to assist Penny in qualifying for disability benefits so that she can obtain assistance with child care costs, housing assistance, and medical coverage. Additionally, a discussion initiated by her counselor reviewed potential workplace accommodations that might further support her. Knowledge of possible workplace accommodations may provide initial reassurance that full-time employment is a possibility than was initially thought to be. Furthermore, the intent is for Penny to be aware of these strategies to help support and maintain her sense of career self-efficacy. Once Penny begins the search for full-time positions, she has entered the Choosing status. Throughout the Choosing status, Penny rehearses self-advocacy skills and disability disclosure rights are provided to her and reviewed with her counselor to help lessen the impact of perceived disability on this process. If Penny is offered a full-time position and accepts, she would be in the Obtaining status. Once she begins to thinking about the work-related responsibilities in her new position, Penny begins to experience a degree of anxiety and distress with the adjustments and change that is occurring in a short amount of time. At this point, the counselor works with Penny to identify a mental health counselor that can meet with her weekly at an affordable cost, and assists Penny in planning a statement of disclosure to move forward to request reasonable accommodations. In the Maintaining status, ongoing support services may be needed for when relapse of symptoms unpredictably occur or persist. If Penny determines that working full-time was not working out in relation to the severity of her disability and her life circumstances at that point, she would then be entering the Exiting status. At this point, Penny may return to either the Imagining, INforming, or Choosing status depending on if she decides to look for other part-time employment opportunities, decides to pursue other full-time positions later on, or determines she would like to change careers.

## INTERVENTIONS

There are a variety of interventions that rehabilitation counselors can implement into their career and vocational services when working with individuals with disabilities. Incorporating the aforementioned strategies or techniques such as MI and the WA into these interventions will encourage the individuals being served to continue to participate in career and vocational services with their counselor. In selecting appropriate career interventions while counseling individuals with disabilities, it is important to acknowledge the following circumstances surrounding disability: (1) no two individuals react to the same degree of functional impairment the same way, as each brings his

or her own personality characteristics, life experiences, and resources (Brodwin, Parker, & DeLaGarza, 1996); (2) it is necessary to select interventions that are developmentally appropriate and in alignment with the individual's cognitive ability and current emotional readiness; and (3) consider the time of onset of the disability. Additionally, the following considerations regarding type and intensity of career interventions for persons with disabilities at the individual level should be considered: (1) the selected approaches should always remain consistent with the applicable code of ethics, (2) guidance has a degree of generalizability to other employment situations, (3) counseling helps the individual to develop skills for coping with anticipated or future changes in their current place of employment or with changes in the overall labor market, and (4) interventions do not disrupt the current work environments of the individual (Enright, Conyers, & Szymanski, 1996).

### *Individual Career Counseling*

The role of individual career counseling focuses on increasing an individual's self-understanding in an employee role, skills or work competencies, and work adjustment in the realm of competitive employment. Individual career counseling is comparable to other types of therapeutic counseling as it can be active, focused, and personal with the goal of increasing the individual's self-understanding and abilities. Assessing the individual's interests, goals, and needs can be completed during individual counseling. Activities such as role-playing and modeling are specific activities that can take place during the individual career counseling process. According to the INCOME framework, an individual in the iNforming status may benefit from individual career counseling as this stage includes acquisition of information and feedback about oneself in relation to the world of work.

### *Benefits Counseling*

Individuals with disabilities are typically concerned about losing their disability benefits that cover their living and maintenance needs if they were to obtain competitive employment. The Rehabilitation Service Administration's major Title I formula grant program provides funds to state VR agencies to provide employment-related services for individuals with disabilities, giving priority to individuals who are significantly disabled. Rehabilitation counselors will encounter individuals with disabilities who may appear to be disinterested or lack the motivation to pursue competitive employment due the anxieties and fears in losing their benefits. Reviewing and providing further clarity on the degree of earnings is allowed without losing benefits which will help to alleviate these concerns. Obtaining and Maintaining stages of competitive employment can be heavily influenced through the outcomes of what will happen to the status of their benefits if employment is offered.

### *Assistive Technology*

The Assistive Technology Act (2004) defines assistive technology (AT) as any item or piece of equipment, or product system, whether acquired commercially, as modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities. The role of AT has a critical role both in the obtaining and maintaining competitive employment, therefore it is necessary for rehabilitation

counselors to have knowledge and information in assistive products and services. Many state rehabilitation agencies collaborate with third party vendors and service providers to provide assessment and training in the area of AT. Approximately 92% of employed persons have reported that AT helped them to work more productively and accurately, 83% indicated they earned more money, and 67% reported that AT helped them obtain employment (O'Day & Corcoran, 1994). AT assists in the Maintaining stage of the INCOME framework for competitive employment.

### Scheduled Workshops

Informational workshops relating to soft skills such as resume and cover letter writing, and interview skills are essential components in the employment process. Including workshops addressing basic employee rights under federal laws (i.e., Americans with Disabilities Act, 1990) as well as decisions centering around disability disclosure and the workplace is another area to address with both prospective and current employees. Scheduled workshops can include topics and activities that can also be addressed during individual career counseling sessions (e.g., completing interest inventories as part of the workshop activities). Depending on the type and purpose of a given workshop, any of the statuses within the INCOME framework can be influenced.

### Job Site Accommodations Support

Rehabilitation counselors may need to provide guidance and assistance to employees with disabilities while they request and secure their necessary job site accommodations. Despite the existence of federal legislation that is designed to require reasonable accommodations and to protect qualified employees from disability discrimination, employers still vary in the amount of experiences they have in accommodating employees with disabilities. Approximately 70% of disability accommodations only cost $500 or less (U.S. Department of Labor's Office of Disability Employment Policy, 2005), and employers can select the least expensive of options if the accommodation is equally effective and fundamentally the same as the more expensive option(s). Job site accommodation support can assist an individual in Choosing, Obtaining, and Maintaining stages of the INCOME framework.

### Supported Employment

Supported employment programs assist people with the most significant disabilities to become and remain successfully employed in competitive and integrated workplace settings. There are distinctive features of supported employment programs when comparing them to traditional job placement service approaches. According to Strauser, Wong, and O'Sullivan (2011), supported employment programs characterize the following: (a) Seek to provide wages that are above minimum wage, have fringe benefits, and are positions with career trajectories. (b) Focus on providing ongoing support required to get and keep a job rather than on getting a person job ready for future employment. (c) Emphasize creating opportunities to work rather than simply providing services to develop job skills for people with disabilities. (d) Encourage full participation. (e) Promote social integration where people with disabilities are encouraged to interact with coworkers and supervisors outside of work hours. (f) Promote flexibility in which people with disabilities are provided with various work options consistent with the

wide range of job opportunities available in the community. Supported employment can benefit individuals who are in Choosing, Obtaining, or Maintaining stages of the INCOME framework.

## SUMMARY AND RECOMMENDATIONS

In this chapter, we reviewed the centrality of employment and its contributions to one's overall well-being and quality of life. Persons with disabilities make up the largest minority population in the United States with approximately 18.7% (U.S. Census Bureau, 2012) and regardless of educational level, individuals with a disability were less likely to be employed than their counterparts without a disability (Bureau of Labor Statistics, 2012). Owing to the ongoing and rapid changes in the workplace from circumstances such as company restructuring and changing or increasing expectations, the complexities between disability and workplace environments increase. The role of the rehabilitation counselor in the career counseling process is critical in assisting individuals with disabilities as they navigate through their journey in the pursuit of competitive employment. In conceptualizing the problems associated with the unemployment rates of individuals with disabilities, there are issues that occur at the individual, societal, and policy levels that may impact the career exploration and job search process. Rehabilitation counselors, who have an active role in assisting in addressing these concerns that are often perceived as barriers by the individual with a disability, will have a greater chance of increasing their likelihood of successful outcomes and growth. Strategies to facilitate change as well as frameworks (i.e., INCOME) that are more conducive to the diverse needs of individuals with disabilities are introduced. Finally, a variety of interventions that facilitate career development and vocational growth are provided. Deciding what information to include, what format is most appropriate, and how to influence the individuals to take advantage of the offerings (Friehe & Aune, 1996) will be facilitated by the rehabilitation counselor. These are the decisions that rehabilitation counselors will address in their counseling and practices as they work with the diverse and individualized needs of the individual.

Further research in the area of work and disability is needed, both in evaluating what techniques carry the greatest overall impact in an individual's career development and in what contributes to the sustainment of employment over time. The nature of disability is expanding, as the majority of disabilities are nonvisible and include symptoms that can be unpredictable in nature. Additionally, there is a need to further educate individuals with disabilities and their rights under the ADA in relation to requesting reasonable accommodations for the workplace (Thompson & Dickey, 1994), and research suggests that the disclosure rates by employees with disabilities are low (Madaus, 2008). Finally, the relationship between an individual's job and work stress is complex with the presence of disability, and further research in managing work stress for individuals with disabilities is needed (Strauser, Wong, & O'Sullivan, 2011). By empowering the very individuals we serve through effective career counseling, guidance, and remediation, we are striving to continually develop and enhance the self-determination needed for employees to become successful and persist in the workplace.

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# *Chapter 18: Elements of Effective Job Placement: Environmental Context, Employer Relationships, and Understanding the Job Seeker*

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***After reading this chapter, you should be able to:***

1. Identify environmental trends that impact job development.
2. Understand how to develop collaborative relationships with employers in the community you serve.
3. Understand the importance of matching the job seeker to the employment outcome they achieve.

The purpose of this chapter is to contextualize and consider the practice of job development across a number of professional processes. The architecture for this chapter is based on three central questions related to this purpose: (1) What environmental trends may impact the work, decisions, and success of rehabilitation professionals (RPs). (2) How can RPs build powerful relationships with employers resulting in increasing and sustaining successful placements? (3) How can RPs better understand the job seeker with a disability to ensure that the right job is going to the right person? In what follows, we will begin by considering the environment context of job development, focusing on 10 key demographic, employment, and economic trends impacting the work of RPs. Next, we focus on best practices around building sustained relationships with employers. Finally, we discuss who stands in the center of all RPs practices and processes: the job seeker with a disability.

For people with disabilities, as for anyone else, being able to get and retain work is not just about money. It is a key part of health and well-being (Waddell & Burton, 2006). Yet, the journey to getting and retaining work for many people with disabilities has been a difficult one. Despite over two decades of protections of the Americans with Disabilities Act (ADA), employment, wage, and poverty statistics indicate that people with disabilities continue to struggle in their employment lives (Erickson, Lee, & Von Schrader, 2011). The barriers to equal employment are complex and multifaceted—they include such things as incentives/disincentives of disability benefits systems, lack of reliable accessible transportation, and shortages of accessible, affordable housing (Hernandez et al., 2007; Kessler & NOD, 2010b). Unfortunately, employer beliefs and attitudes seem to play an important role in these disappointing statistics (Blanck, 1998; Unger, 2002; Baldwin & Johnson, 2006; O'Neill, Vandergoot, Sevak, & Martin, 2012). As an RP, you are at the forefront of reaching employers to change their negative expectations of people with disabilities.

The work of the RP is complex, spanning a wide range of capabilities and practices. Bringing about successful employment outcomes for people with disabilities hinges upon both person and practice variables (Campbell, Bond, Drake, McHugo, & Xie, 2010; O'Neill et al., 2012). Hence, RPs must develop competence across a range of spheres: Business and workplace effectiveness, counseling/consulting practice, legal/policy issues, and human issues around entering and remaining in the workplace as a person with a disability. Add to this the fact that these variables are constantly changing, and the work of the RP becomes even more complex.

Many different terms have been applied to the work of RPs. Two terms frequently used are those of *job placement* and *job development*. The work of RPs is changing. The term *job placement* is a more narrow, static conceptualization of the work of RPs. RPs who see their role as *job placement* focus simply on placing people into jobs. Their attention is toward changing the individual consumer to fit the job; their measure of success is simply the number of placements with less focus on the viability or sustainability of the work. The term *job development* expands the focus of the RP to include changing not only just the consumer but also partnering with potential employers to help them recruit and hire people with disabilities and also to build sustainable partnerships. The job developer has two customers, the employment community and the people with disabilities who are looking for jobs. The job developer's goal is to ensure a good match between the person's skills and abilities and existing positions within the community. The measure of success for *job developers* is not just number of short-term placements, but the longer term viability and sustainability of employment. *Job development* focuses on building partnerships with employers so as to create new opportunities instead of just to fill jobs.

Several studies on the nature of the work of RPs serve to illuminate the complexity of this job role (see, e.g., Revell, Wehman, Kregel, West, & Rayfield, 1994). A number of studies have examined the effectiveness of job development practices from particular perspectives. Many of these studies centered on particular types of disabilities (see, e.g., Rimmerman, Botuck, Levy, & Royce, 1996; Banks, Novak, Mank, & Grossi, 2007). Other studies focus on particular roles within the job development profession, such as education—work transition (see, e.g., Test et al., 2009; Luecking & Wittenburg, 2009) or job development and family involvement (see, e.g., U.S. Department of Education, 2010). Yet, other studies focus on particular practice models for the job development process, such as person-centered planning (see, e.g., Hasnain, Sotnik, & Ghiloni, 2003), customized employment (see, e.g., National Center on Workforce and Disability, 2007; Citron et al., 2008), or job–person match (Resnick & Bond, 2001; Hergenrather, Rhodes, McDaniel, & Brown, 2003; Kukla & Bond, 2012).

Bou, Sauquet, and Bonet (2010), in their deep description of the work of RPs, illuminated the difference between espoused or formal practice and real or on-the-ground practice. In what follows, we try to capture the elements of practice that bring together both realms, combining both formal job development models as well as real-life practices. Our description of elements of practice begins by grounding these elements in trends in our society, workplace, and business landscape. We then proceed to elements of practice that are based in the real-life work of RPs: Understanding employment trends, building employer relationships, understanding the needs and interest of job seekers and their particular experience of disability, finding and growing the job, and creating sustained employment. Finally, we provide a summarizing table to give a quick snapshot of all the elements of practice and further resources for your continued professional development.

## UNDERSTANDING TRENDS: THE CONTEXT OF JOB DEVELOPMENT

| Critical Trends in Job Development |
|---|
| • Evidence that hiring people with disabilities is a good investment for employers |
| • More people with disabilities have college degrees |
| • The job market is recovering and more jobs are available |
| • People are paying attention to emerging and declining job sectors |
| • Work incentives and Social Security reform are available to encourage people to return to work once on Social Security benefits |
| • Employers are relying on a contingent workforce that offers an alternative entry point into employment |
| • The ADA Amendments Act has focused attention on discrimination against people with disabilities in the workplace |
| • The president issued an Executive Order for the federal government to become a model employer for people with disabilities is encouraging hiring in the federal sector |
| • More companies are integrating disability into their diversity plans |
| • The baby boomers are acquiring disability while on the job giving employers valuable experience in addressing disability in the workplace |

RPs stand at the crossroads of many intersecting paths: Employers who are interested in running a profitable or effective operation; policy makers who are interested in the fair and efficient use of taxpayer funds; RPs who are interested in rates of sustained placements; and, of course, people with disabilities who are interested in the same thing as anyone else—to have an equal opportunity for viable sustained employment using their skills, talents, and interests. Making sense of the paths of these varied stakeholders involves understanding the context within which each functions. In what follows, we briefly discuss key trends impacting the practice of job development. A full discussion of each of these trends is clearly outside the scope of this chapter. In the interests of brevity, we provide a brief glimpse of each trend, focusing on implications for job development.

### Trend #1: People With Disabilities in Employment: It Is Getting Easier to Make the Case

Substantial research shows that employing people with disabilities is a good return on investment for employers. Overall, studies suggest that people with disabilities perform as well as others in the workplace (Parent and Everson, 1986; DuPont, 1993, DePaul University, 2007; Hernandez & McDonald, 2010). Other studies indicate that the cost of reasonable accommodations is, on the whole, significantly less than what many employers fear (Hernandez & McDonald, 2010; Job Accommodation Network, 2012). Table 18.1 summarizes the findings of an ongoing Job Accommodation Network study on employers' perceptions of the direct and indirect benefits of providing reasonable accommodations in their workplaces (Job Accommodation Network, 2012). This study asked employers to indicate the direct and indirect benefits of providing reasonable accommodations in their workplace. Table 18.1 illustrates that the majority of employer–respondents indicated that providing accommodations enabled them to prevent turnover, increase productivity, reduce costs of new worker training, and improve attendance. As demonstrated in Table 18.1, employers are increasingly realizing the return on investment of disability inclusive practices in their workforce.

**Table 18.1** *Job Accommodation Network Study, Workplace Accommodations: Low Cost, High Impact*

| **Direct Benefits** | **%** |
|---|---|
| Retained a valued employee | 90 |
| Increased the employee's productivity | 71 |
| Eliminated costs associated with training a new employee | 60 |
| Increased the employee's attendance | 53 |
| Increased diversity of the company | 42 |
| Saved workers' compensation or other insurance costs | 39 |
| Hired a qualified person with a disability | 13 |
| Promoted an employee | 10 |
| **Indirect Benefits** | |
| Improved interactions with coworkers | 66 |
| Increased overall company morale | 61 |
| Increased overall company productivity | 57 |
| Improved interactions with customers | 45 |
| Increased workplace safety | 45 |
| Increased overall company attendance | 38 |
| Increased profitability | 31 |
| Increased customer base | 17 |

Job Accommodation Network (2012). Reprinted with permission.

### Trend #2: Educational Attainment: Good News

Often, employers assert that they cannot find qualified candidates with disabilities. Yet, in light of improvements in the educational attainment of people with disabilities, it may be time to question this assertion. The generation of people with disabilities now entering the labor market has had the protections of the Individual with Disabilities in Education (IDEA) throughout their educational lives. Also, more recent laws such as the Higher Education Opportunity Act and the ADA Amendments Act have offered protections for equal continuing educational opportunities. The gap between the educational attainment of people with and without disabilities has narrowed. In a survey reported by the Kessler Foundation and the National Organization on Disability in 2010(a), 82% of people with disabilities indicated they had completed high school (as compared with 89% of those without disabilities). In 2004, only 61% of people with disabilities completed high school. For higher education, 19% of people with disabilities reported graduating from college as compared with 27% of those without disabilities. In 2004, only 14% of people with disabilities reported completing college (Kessler & NOD, 2010a). Finally, more people with disabilities are enrolling in college (Newman, Wagner, Cameto, Knokey, & Shaver, 2010). According to the National Center for Educational Statistics, 707,000 students with disabilities were enrolled in colleges throughout the United States during the 2008–2009 academic year (Raue & Lewis, 2011). Ninety-three percent of colleges and universities reported providing at least one accommodation/modification for students with disabilities, with more time on exams being the most frequently provided accommodation. Finally, over one-third (37%) of colleges reported working with vocational rehabilitation agencies on disability and education issues. During the job development process, it is important to both understand and communicate the fact that people with disabilities are becoming increasingly skilled and qualified for the workforce. Also, it is important to reach out to institutions of higher education to ensure that students with disabilities receive the same school-to-work support as other students.

### Trend #3: The Recession and the Recovery

Despite gains in educational attainment, data from the Current Population Survey showed that job losses for people with disabilities were far greater than for other groups. Because of this, the proportion of workers with disabilities in the U.S. workforce declined by 9% between 2008 and 2010 (Kaye, 2010). Yet, there are indications that the labor market is rebounding. According to the U.S. Department of Labor [DOL], 121,000 jobs were added to the private sector just during March 2012, with the unemployment rate falling to 8.2%. Four million jobs have been added to the economy since 2008 (U.S. DOL, 2012). As of April 2012, the percent of families overall who have at least one unemployed person was 12.4% in 2010 as compared to 11.5% in 2011 (U.S. BLS, 2012a).

### Trend #4: Emerging and Declining Job Sectors

What employment sectors are most promising for sustained employment? Which are on the decline, offering an unstable outlook for sustained employment? These questions are at the heart of job development practice. People with disabilities tend to be overrepresented in declining job sectors and underrepresented in sectors that are growing. According to the National Council on Disability, 86,000 jobs would be gained for

people with disabilities if their occupational distribution reflected the job growth rate (NCD, 2007). Every 2 years, the Bureau of Labor Statistics (BLS) issues the *Employment Outlook Handbook*.[1] The 2010–2020 BLS Industry and Employment Outlook Projections report (upon which the handbook is based) shows that the fastest-growing job sectors are in health care (e.g., home health aides, nurses, and physical therapy assistants), social assistance (e.g., individual and family aides), and professional/business services (e.g., management and technical consulting). Declining job sectors include manufacturing, postal service, food preparation, and textile work. Construction, though growing, is not expected to fully regain the jobs lost during the recession (U.S. BLS, 2012c). Employment outlook projections also point to the increasing need for higher education. Seventeen of the 30 occupations projected to have the fastest job growth will require some type of postsecondary education for entry. For jobs that typically require on-the-job experience instead of a college degree, jobs that require apprenticeships are projected to grow the fastest (U.S. BLS, 2012c). The implication for job development is clear: further education (in either higher education or apprenticeships) will likely pay off; focus on industry sectors that have stable and sustainable job growth. Form relationships with tradesmen and the organizations that support them to ensure access to apprenticeship programs for job seekers with disabilities who are interested in careers in skilled trade work.

#### Trend #5: Understanding Social Security Benefits

Social Security Disability Insurance (SSDI) was established to replace the income of those who cannot work because of a disability. Because of the "all-or-nothing" history of our benefits systems, people with disabilities have been faced with a difficult decision. Many people with disabilities want to work, but believe entering the workforce may mean risking the loss of financial support, medical care, access to assistive equipment, and other services. Yet, more recent changes to the SSDI system under the Ticket to Work program, Work Incentives Improvement Act of 1999, and the Benefit Offset National Demonstration (BOND) have aimed to ease the risks of returning to work for SSDI beneficiaries. A full discussion of these issues and programs are outside of the scope of this chapter.[2]

#### Trend #6: The Rise of the Contingent Workforce

Known as temporary, freelance, seasonal, or contract workers, the number of people working in the contingent workforce have grown precipitously over the past two decades (U.S. Department of Labor, 2012). Though it is difficult to get the exact numbers about the contingent workforce (there are different definitions of what should be counted as "temporary"), it is likely that between 10% and 50% of workers are in the contingent workforce (Lui & Kolenda, 2012). Since 2009, temporary help services has added 730,000 jobs to the workforce; this accounts for over half of the employment gains in professional and business services, one of the most rapidly growing job sectors (U.S. BLS, 2012b). Various causes have been posed for this trend: globalization and the increasing competition from cheaper supplies of labor, the reduction of benefits costs to employers, the need for businesses to be agile in deploying their workforce, and the demand from some segment workers (such as retirees) for nontraditional work arrangements. Regardless of the cause, however, this trend offers a mixed blessing for workers with disabilities. On one hand, employers may be more willing to undertake what they believe to be a risky hire when the job is a temporary arrangement. In this way, jobs in the contingent workforce may offer an opportunity to build experience, make contacts, and bolster a résumé. On the

other hand, jobs in the contingent workforce are unstable, often do not have benefits such as medical insurance, may not have the same opportunities for training and advancements, and often do not have the same legal protections as traditional jobs.

#### Trend #7: The ADA Amendments Act (ADA AA)

Signed into law in 2008 and made fully enforceable in 2009, the ADA AA was passed to address a catch-22 situation in disability and employment legal protections. Because of the Supreme Court decisions taken after 1990, the definition of disability became so restrictive that few could successfully bring charges. Instead of looking at the alleged discrimination event itself, courts were focusing only whether the individual had a qualifying disability under the ADA. A key purpose of the ADA Amendments Act was to restore the ADA to reflect the original intent of Congress in 1990 when the original ADA was passed. The ADA AA specifies that the definition of disability will now be based on the individual's condition in their unmitigated state (in other words, without the use of mitigating measures such as treatments, medicines, or assistive devices). The Amendments Act also changed the way that the courts would evaluate episodic conditions, such as seizure disorders or multiple sclerosis. Episodic conditions will now be considered by the courts as if the disability was always in its active state. Because of this expanded definition, many more individuals will now be given the ADA legal protections against workplace discrimination. Also, it is now easier to bring an ADA charge based on perceived discrimination, without having to prove that the person has a disability under the law. Called the "Regarded as" provision, this charge is based on establishing that workplace discrimination occurred based on the employer's perception of a disability (except the disability of using eyeglasses). Individuals bringing charges under the "Regarded as" provision are not entitled to reasonable accommodations. A key implication for job developers is the fact that many employers are now looking for expertise on how to ensure that their disability practices are legally compliant. As a job developer, you can offer expertise in this area. Also, more of the consumers you work with will now be given the protections of the ADA.[3]

#### Trend #8: Federal Disability Employment Initiatives

Employers may not be aware of federal initiatives to increase accessibility and the hiring of people with disabilities. The Architectural/Transportation Tax Deduction program can be used by any business to remove existing barriers in buildings or transportation vehicles. The Disabled Tax Credit can be used by small businesses to buy equipment, aids, or devices and to remove architectural barriers. The Work Opportunity Tax Credit give employers a tax credit for hiring workers from certain targeted low-income groups, including individual with disabilities referred by vocational rehabilitation programs.[4]

Other initiatives have to do with hiring and contracting within the U.S. federal government. The U.S. Department of Labor recently proposed a program that would require federal contractors to set a goal of having people with disabilities comprise 7% of their workforce.[5] In conjunction with the New Freedom Initiative introduced in 2001, the U.S. Office of Personnel Management changed hiring procedures to encourage and facilitate the hiring of people with disabilities in federal government agencies.[6] Other federal hiring initiatives target veterans and veterans with disabilities. The Veterans Job Corp program includes an employer tax credit for hiring veterans and veterans with disabilities.[7] Finally, the U.S. Business Leadership Network's Disability-Owned

Business Enterprise Certification can offer disability-owned businesses a leg-up in the contracting process.[8] As an RP, you have an opportunity to build awareness of these and other initiatives to facilitate and incentivize the employment of people with disabilities.

#### Trend #9: Increasing Awareness of Disability, Diversity, and Inclusion

Since the 1970s, businesses have been implementing efforts to increase diversity in the workplace and in customer service. Yet, these diversity plans have all too often not included America's largest diversity population: people with disabilities. An emerging awareness among employers is the need to meaningfully include disability in diversity and inclusion efforts. As an RP, you are uniquely positioned to be viewed as an expert resource for businesses as they reinvigorate their diversity efforts.

#### Trend #10: The Aging of Our Workforce

According to the U.S. Administration on Aging, persons 65 and older numbered 40.4 million in 2010, with an increase of 5.4 million just in the prior decade (U.S. Administration on Aging, 2011a). In 2008, the U.S. Bureau of Labor Statistics reported that between 1977 and 2007, the employment rate of workers over age 65 increased by over 100% (U.S. BLS, 2008). As we age, we are more likely to acquire a disability (U.S. Administration on Aging, 2011b). Hence, in the coming years, as more people will be working with a disability. Given this trend, employers will have intensified ongoing needs around ensuring that older workers can continue to contribute their skills, talents, and experience as they age into a disability.

## BUILDING EMPLOYER RELATIONSHIPS

### *Speaking the Employers Language*

Being fluent in the language of business and understanding the needs and motivations of employers are key strategies to building effective relationships between RPs and employers. This understanding is critical to developing suitable messaging and could also lead to thinking about more meaningful titles that resonate in the business environment. To frame job development in this context, let us define it as a transaction between an employer and a job seeker brokered by an employment service professional. To achieve optimal outcomes, a successful broker must be fully aware of the needs of each customer (job seeker and employer) and effectively represent the interests of both. Since employers are the gatekeepers of jobs and therefore may have the upper hand in this transaction, it is critically important that RPs communicate clearly the value they place on ensuring a satisfactory result from the business perspective.

One way to assure that employers recognize that they are considered a high-priority client is through the broker's title which should also convey this message (Hagner & DiLeo, 1993, Bissonnette, 1994). Yet, the most commonly used titles of these "brokers" are job placement specialists, job developers, employer development specialists, and some other variations on this theme. So, what is in a name? What do these titles communicate to employers and what would be a more "business-friendly" term to describe the actual role RPs play in supporting talent acquisition from both the demand and supply side? To identify titles that may reflect this function, we looked at the ones

used by staffing agencies as these are most closely allied with the concept of matching job seekers to job vacancies. The following description is found on the career site of Adecco (2012), a large international staffing firm looking to fill the position of an account executive:

- Aggressively seeking out new business opportunities through presentations and cold calling
- Developing and cultivating network relationships with local businesses
- Identifying and fulfilling the needs of clients in a timely manner without sacrificing service or candidate quality

While these responsibilities do not take into account the important role that RPs play in assessing and assisting job seekers, they do describe the method by which they need to outreach to and interact with employers. We all know that most jobs, and often the best jobs, are found through networking and personal relationships (Owens & Young, 2008). This is something that placement professionals are also keenly aware of and regularly look for opportunities to build relationships with employers (Luecking & Tilson, 2009). Follow-through and timeliness on the part of employment service agencies and candidate quality are critical for job placement, relationship building, and for establishing trust and credibility between RPs and employers (Fabian, Luecking, & Tilson, 1995; Molinaro & Spitzhagel, 1984; Simonsen, Fabian, Buchanan, & Luecking, 2011).

It is important to note that employers recognize the importance of strong, mutually beneficial relationships with RPs. A recent study conducted by DePaul University (2007) indicated that employment service agencies were a key factor in employers' ability to recruit and hire people with disabilities. Employers themselves have indicated that a connection to a source of applicants with disabilities is important to ensuring effective identification, recruitment, and sustained employment for their companies as well (Waterhouse, Kimberley, Jonas, & Glover, 2010). RPs should capitalize on the value that they offer employers as they build relationships in and around their community.

### *Tailoring the Message*

With the advance of technology and social media, our attention span has been increasingly shrinking. The proliferation of texting with its short-hand language and Twitter with its 140 character messages trained us to listen to sound bites. It is therefore more important than ever to have a short and meaningful message that gets to the point within the first 30 seconds to command an employer's interest. Those critical first few words must clearly communicate a targeted customized message for a specific employer about the benefit of working with an RP.

RPs should draft an effective "elevator speech" that clearly and concisely defines the message that they want to relay about both the employer-focused service they provide and the job seeker(s) they represent. The main goal of the elevator speech is to get and hold the employers attention. It should include a brief introduction and communicate a value proposition. For example, RPs may emphasize that candidates referred are not only qualified but also prescreened based on job descriptions and requirements, which may include reference checks. Demonstrating knowledge about the company is important, but connecting on a personal level requires knowing your "audience." With the proliferation of social media it is easier than ever before to gather enough information for making a personal connection. Good places to start include LinkedIn, Facebook, and Google.

Acknowledging personal or professional achievements are especially helpful in getting an employer's attention. Clearly, an effective elevator speech has two main components. The first, the introduction, is generic to all employers and states the benefit of the service. The second, the hook, is the portion of the message that must be tailored to individual employers and where they might find value in working with job seekers with disabilities. While it may take some time and research to personalize each message, the return on investment will justify the additional effort.

### *Employer Involvement With Job Seekers*

RPs should not limit outreach to only companies who are in a hiring mode, but capitalize on every opportunity for building relationships. In such cases, RPs must change their message, appeal, and value proposition and find ways to engage employers in a mutually beneficial manner. For example, many businesses encourage their staff to volunteer with not-for-profit organizations as part of their community relations and activism or larger corporate social responsibility effort. Human resource practitioners may offer valuable services at a time when they are not too busy recruiting and hiring. RPs may be able to arrange mock interviews where human resource professionals from local businesses could review job seekers' résumés, conduct practice interviews, offer mentoring, or give presentations about employer expectations and requirements for job seekers with disabilities. Human resource professionals may also be interested in serving on business advisory councils for local employment service agencies. While job seekers gain important insight into business practices through these interactions, job placement professionals benefit from relationship building that may ultimately lead to job opportunities once vacancies become available. Again, this is a win–win relationship.

### *Selling Success*

People with disabilities are a major source of human capital that still remains largely untapped due to persistent misconception about their capabilities and potential. According to the Bureau of Labor Statistics, 70% of individuals with disabilities say that they want to work full time, but only about 21% do (Klein, October 2011). In March 2012, the unemployment rate for persons with disabilities was almost double of those without disabilities at 15.2% versus 8.1% (U.S. Department of Labor Office of Disability and Employment Policy, 2012). As a group, people with disabilities represent a broad range of abilities, diverse talents and skills, and a variety of backgrounds and experiences. They also occupy a wide range of jobs in an equally wide range of industries while contributing significantly to their employers' success and revenue (DePaul University, 2007).

Some employers go to great lengths to increase diversity efforts within their organizations. Merck, a company that employs over 90,000 employees, has created recruitment programs for people with disabilities that include internship opportunities and partnerships with disability-focused organizations, such as the one with the Career Opportunities for Students with Disabilities (COSD), a professional association focusing on improving the employment rate of college students and recent graduates with disabilities. Merck states that these programs "ensure that it recruits best-in-class diverse talent" (U.S. Business Leadership Network, 2011, p. 13).

Organizations that hired employees with disabilities found them to be creative and resourceful, motivated and dependable, and loyal and productive (Kessler Foundation & NOD, 2010b). Many companies find that hiring people with disabilities spurs creativity and innovation in the workforce as a whole. John Chambers, Cisco's

CEO, stated that employing people with disabilities was "instrumental in spurring on new forms of creativity and productivity in the work environment" (Online Human Resources, 2012, para. 6). As an added benefit, Cisco found that hiring people with disabilities led to enhancements in the company's product line as well (Online Human Resources, 2012).

Cincinnati Children's Hospital (CCH) has also had a great deal of success in tapping into the unique abilities and potential of people with disabilities and has even inspired the growth of similar programs around the country and the world (Project SEARCH, 2012). Project SEARCH began in 1996 as a solution for CCH's turnover problem in their emergency department. It was difficult to keep employees in some of its entry-level positions. Erin Riehle, who at the time was the director of the hospital's emergency department, reached out to local service providers that trained young adults with disabilities to explore a potential solution to its problems. This resulted in the establishment of a High School Transition Program housed at the hospital for students with disabilities. The transition program's main goal was to secure employment for students with disabilities upon graduation, while the goal of the hospital was to reduce turnover in the emergency department. This innovative solution allowed both organizations to meet their goals in a mutually beneficial way (Project SEARCH, 2012). Project SEARCH has been replicated over 200 times since its founding was initiated. The CCH program continues to support the importance of relationships within local communities as one of the eligibility requirements for inclusion in the program is a referral from one of the hospital treatment team members (Cincinnati Children's Hospital Medical Center, 2011).

Innovation is everybody's business and may come for unexpected reasons in some organizations. Randy Lewis, the Senior Vice President of Distribution and Logistics at Walgreens capitalized on his personal experience with people with disabilities when Walgreens opened a distribution center in South Carolina in 2007. Mr. Lewis did not only encourage distribution center managers to hire people with disabilities but also was an instrumental in ensuring that the center was designed to accommodate employees with cognitive and physical disabilities. Mr. Lewis succeeded more in his goal since about 40% of staff at this distribution center have a physical or cognitive disability. The company has a goal of filling 10% of all of its production jobs at its distribution centers with employees with disabilities (Walgreens, 2012). It is important to note that Walgreens holds people with disabilities to the same production standards as all other employees and they receive comparable pay for completing the work (U.S. Business Leadership Network, 2011). Walgreens is currently working to integrate its service clerk position at its retail stores starting in the Dallas/Fort Worth area with a goal, at this time, of 10% of jobs filled with people with disabilities and plans to expand the Retail Employees with Disabilities Initiative in 2012 (U.S. Business Leadership Network, 2011; Walgreens, 2012).

Inspired by the success of Walgreens, Lowe's, the second largest home improvement retailer in the world, began recruiting employees with disabilities throughout its distribution system in 2008. Stephen Szilagyi, Senior Vice President of Distribution, also takes every opportunity to share his company's success with hiring and retaining people with disabilities. During the Corporate Disability Employment Summit sponsored by the U.S. Chamber of Commerce and the U.S. Business Leadership Network (USBLN) in April 2011, Szilagyi described one of Lowe's employees with disabilities as "He's exactly the kind of person you want on your team, but you can't have him. He is our's" (Gurchiek, 2011). The Leadership team at Lowe's is dedicated to diversity efforts and led the Diversity Advisory Council and Diversity Leadership Team (U.S. Business Leadership Network, 2011). Buy-in from senior-level management can certainly pave the way for hiring people with disabilities within companies.

### Box 18.1 *Key Factors in Building Employer Relationships*

- Title of the rehabilitation professional should accurately represent their role as a broker between the job seeker and the employer
- Follow through with employers is critical to proving professionalism
- Keep the employers timeline in mind and be honest about whether or not you can meet it
- Maintain the relationships you develop with employers to ensure that you can meet ongoing needs
- Craft an elevator speech to present to employers with limited time
- Outreach to all employers, not just those currently hiring
- Sell your success and that of others in the field

The organizations described above represent just a sampling of employers who, through their experience, came to appreciate the value that employees with disabilities bring to the workplace. They and many others have developed a deep commitment to employing people with disabilities because they discovered that it is good business.[9] The fact that these hiring initiatives have been expanded and replicated both nationally and internationally is a testament to the unlimited potential of people with disabilities. The case studies selected represent a variety of industries and are provided here to increase employers' awareness and appreciation of what people with disabilities can do. One magazine, *DiversityInc*, has added companies that demonstrate a commitment to hiring people with disabilities to its "Top 50" lists. It is becoming increasingly evident that companies recognize that to remain competitive they must tap into all talents, and therefore that hiring people with disabilities is critical to growing their business (Box 18.1).

## UNDERSTANDING THE JOB SEEKER

RPs have two clearly defined customers (Luecking, 2008). While building employer relationships is a critical first step, the RP must devote equal time to an equally important customer, the job seeker with a disability. Despite the best efforts of RPs since the passage of the ADA and beyond, people with disabilities struggle to find meaningful work in their communities (Erickson et al., 2011). RPs should support people with disabilities to understand their career goals and to package their skills and interest in ways that the employer can easily discern the value of the job seeker as a potential employee. The amount of support that each individual with a disability will need during the job search process will vary. Some people with disabilities may simply be seeking guidance on organizing their job search, choosing which companies to approach, and creating a strategy to approach them. Others may want assistance with making the initial inquiry with employers to ensure that a job is open and that the culture of the organization is open to all individuals. Other job seekers may be seeking help with creating customized employment opportunities. As an RP, you must tailor your services to each individual you work with and help them to be as independent as possible during the job search process.

### *Tailoring the Job Search*

The job search process can be overwhelming for some people with disabilities. Depending upon the nature of the person's disability and their age, work experience may be extremely limited. The question of "what do you want to do" can be mystifying.

### Box 18.2 *Sample Questions to Tailor the Job Search*

- What are the job seekers likes and dislikes?
- What kind of environment would suit the job seeker?
- Does the job seeker require medical benefits? Are there other financial considerations?
- Is there a time of day the job seeker is at their best?
- Are there other restrictions imposed by the person's specific experience with disability (i.e., needs air conditioning or a quiet environment)?

Any career search should start with the person. What are the person's likes and dislikes? What does he do for fun? What kind of environment will she be at her best? What financial and lifestyle considerations are important to him? These are some basic questions to consider when considering where and how to start the job search process. Again, depending on the nature of the person's disability, additional questions may be important. For example, if a person has a disability that causes fatigue, it is important to consider the time of day they would be scheduled to work. Would a full-time schedule or a part-time schedule be more appropriate? Considering these issues as the job search parameters are constructed will help to ensure an appropriate match between the person and the work environment. RPs should use all data available to them, including both conversations with the job seeker and formal assessment data in determining the optimal career for the job seeker with a disability. A good match is critical to ensuring that the person with a disability will be successful in the position (Roessler, 2002; Wehman, 2011) (Box 18.2).

## *Packaging Job Seeker Skills*

As the job seeker and the RP make decisions about the kind of career the person with a disability is seeking, it is helpful to package the person's skills and experiences in a way that an employer can easily review. Some people with disabilities lack experience in the world of work, or they may have gaps in employment as a result of their disability. These are not facts that RPs necessarily want to highlight for employers, but traditional résumés tend to do just that. RPs should support job seekers in finding a way to highlight their value to employers in a meaningful way.

Job-seeking portfolios are becoming increasingly popular as a way to clearly define a job seeker's skills and experiences. For people who have limited vocational experience, a job skills portfolio can better highlight related experience, education, accomplishments, and skill sets. It can serve to highlight the potential of the job seeker versus highlighting lack of experience. Portfolios come in all forms, from a simple website to a three-ring binder; it is important to help the job seeker to identify which tool would be well received in the industry the person is seeking to enter. If a computer-related position is the goal, perhaps helping the job seeker to create a personalized website would be optimal. If they are a graphic designer, then artwork should be included. The contents of the portfolio should also be tailored to the job seekers specific career goals. It can include paid work experiences, nonpaid work experiences, skills and talents, and compelling interests. It is important to ensure that the information included highlights skills and abilities of the person including related accomplishments that highlight their potential (Hansen, n.d.).

### Individual Implications of Disability

Each person experiences disability in a unique way. It is important that the RP has a firm understanding of how a person's disability impacts their life on a day-to-day basis. This knowledge will help the RP to assist the job seeker to arrange the work day and activities in ways that work. Review the prospective job description and identify the essential functions of the job. Think about how you will effectively perform these tasks. If there is something that will make the job easier or possible where the job seekers disability may make it difficult, consider asking the employer for an accommodation. While it may be reasonable to assume that an employer can reassign nonessential portions of the job, the reassignment will have to be negotiated with the employer. It may mean that the job seeker would take on more of one task or take on additional tasks from other employees.

### Supporting Advocacy

In order to be successful in employment situations, people with disabilities must effectively advocate for themselves. In its simplest definition, self-advocacy means effectively letting others know what is needed to be successful in a given situation. Generally speaking, this should be communicated in a way that people can hear the information and understand the implications of the requests that is being made. Just asking for something does not always mean that the job seeker will get it. As an RP, you may have to assist the job seeker to negotiate with the employer to identify a solution that will work for everyone. In order to negotiate effectively, the person with a disability must be able to explain the functional limitations that result from their disability and identify accommodations that may work for them in a particular employment situation. Remember, the only way a job seeker can be sure not to get the supports he needs is not to ask. As an example, consider someone who requires a sign language interpreter to communicate with an employer during an interview, but they live in a rural setting. After asking the employer for this accommodation, the person may have to negotiate with the employer as to whether the sign language interpreter is in the room with them or if the employer will arrange for video interpreting. Considerations for this decision may include the number of participants involved in the interview, the number of locations where the interview will take place, and if a tour or other travel-related item is involved in the interview that would make video interpreting impossible to implement effectively. The person with a disability can and should make recommendation as to what accommodations would be effective for them, but in the end, it is the employer who makes the decision as to what accommodation gets implemented. In order for an organization to meet their responsibilities under the ADA they must provide an effective accommodation, this does not always mean the accommodation will be optimal.

Deciding when, how, and how much to disclose about the disability is a critical point for any job seeker. There are legal protections available to people with disabilities during the job search process, but to access those protections; the person with a disability must disclose. A recent study completed by Cornell University, in partnership with the American Association of People with Disabilities (AAPD), indicates that many more of the survey respondents with not or somewhat apparent disabilities choose to wait to disclose until after they had been offered the job. The percentage of respondents who elected to disclose a disability varied according to how apparent the disability was to others. Figure 18.1 illustrates the disclosure decisions made by respondents in this survey (von Schrader, Malzer, Erickson, & Bruyère, 2011).

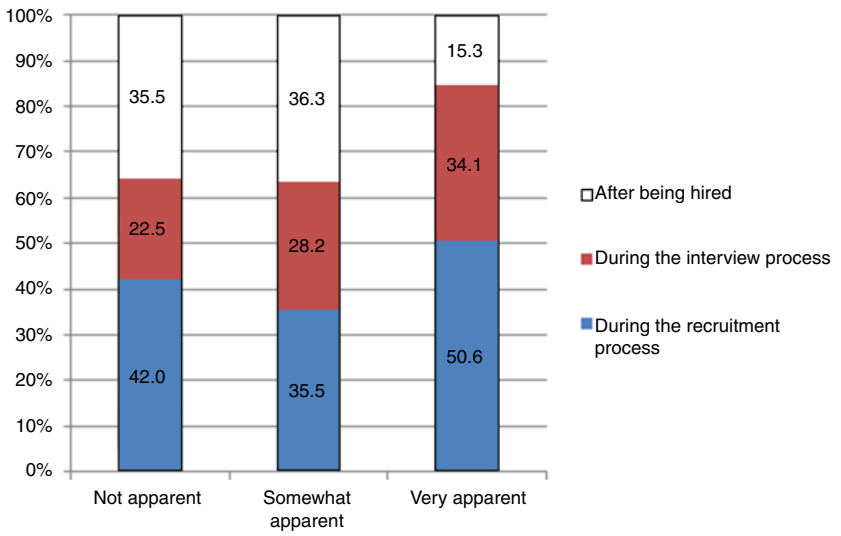


**Figure 18.1** ***When respondents disclosed their disability, by how apparent the disability was to others.***
Reprinted with permission. Von Schrader, Malzer, Erickson, & Bruyere (2011).

No one can make the decision to disclose for a person with a disability, it is a very personal decision and it can have implications for how people with disabilities are perceived at work. Many people with disabilities are concerned about stigma or that the impact of preconceived notions around disability may be too prevalent to warrant disclosure when the person does not require an accommodation to participate effectively in the interview (Dalgin & Bellini, 2008). Results of this survey suggest that more than half of the people in the survey who choose to disclose their disability had a positive experience immediately after disclosure (between 53% and 54%). Fewer respondents rated the longer-term consequences of their disclosure as positive (between 40% and 43%) (von Schrader et al., 2011).

Before the job search begins for a specific individual with a disability, the RP has already done a great deal of homework. They must forge strong relationships with employers in their community and they have to understand the parameters of the job search and support needs of the individual job seeker. Only then can they begin the hunt for a meaningful career for a job seeker they are supporting. It is only through a strong understanding of both of these customers that the employment services program (ESP) can ensure a lasting and meaningful career match between the job seeker with a disability and their employer.

## FINDING AND GROWING THE JOB

Competition for jobs can be stiff. Generally speaking, by the time a job appears in the newspaper or other external advertising source, not only are a lot of the desirable positions taken, but the competition for the job increases dramatically. If the person with a disability that you are working with is looking for a traditional position with a local employer, it is critical that you identify and apply for positions before they are made available to the general public (Farr, 2004). How does an RP facilitate this process? The answer is simple: networking. As discussed above, it is imperative that you create

relationships with employers in your area, these relationships will not only allow you access to jobs before they are advertised to the general public but also provide opportunities for creating expanded job options for people with disabilities.

### Community and Job Development

As an RP, one of your most useful resources is right out your front door: Your local community. Developing relationships with local agencies, organizations, businesses, and employers can greatly increase the power of your efforts. By establishing these relationships, you not only build trust and opportunity but also position yourself as an expert on a key emerging issue in our society: the inclusion of people with disabilities in our employment, educational, commerce, and democratic life.

Take an inventory of local stakeholders who could potentially be impacted by disability. For each stakeholder group you identify, consider direct and indirect ways this group can be impacted by disability issues; how this stakeholder could benefit from a disability perspective; how this stakeholders' organization could be changing; and how your agency could forge collaborations.

To get started, consider the following cases of how job development professionals collaborated within their local communities/regions to advance both their own goals as well as those of people with disabilities in general:

- A job development professional collaborated with a local Society for Human Resource Management[10] (SHRM) chapter to give a presentation about disability and workforce trends impacting the workplace.
- A vocational rehabilitation agency collaborated with a local community college to ensure that the college's annual job fair included booths and messaging around the talents of people with disabilities in the local community.
- A local career and disability agency collaborated with a local independent living center and a major local business to start a mystery shopper program. This program involved sending people with disabilities unannounced to assess participating businesses in terms of their accessibility and the disability friendliness of their customer interface. The purpose of the program was not to highlight what the companies they visited were doing wrong, but rather to help local business improve, communicate, and celebrate their disability inclusiveness efforts.
- A career and disability agency collaborated with a service organization and a local veterans' group to create a local Disability Awareness Day conference around disability and veterans' issues in the local community.

There are many more examples of these types of collaborations; the possibilities are endless. Successful and sustained job development is not just about finding placements. It is also about positioning yourself as a trusted and willing expert who adds value to your local community.

### Customizing Your Approach

The RP must customize their approach to each business as the needs of businesses are not universal and in fact often change over time. Furthermore, there are also significant differences among businesses based on company size, type of industry, workplace culture and organizational commitment to diversity, legal obligations, and prior experience or relationship with people with disabilities on a personal or professional

level. While research into a specific company may not reveal all these characteristics, it could certainly shed light on the types of jobs a company typically hires and will often include information about educational and skill levels generally required by the employer. In addition to the Internet and company websites, local papers are also useful as they provide information about business expansions and new contracts as well as the names of business leaders taking on new positions or joining advisory boards at organizations that match up with their interests. Starting conversations with employers with these kinds of facts can be quite powerful, since they demonstrate knowledge and interest while also providing an effective way of establishing an immediate bond by recognizing the employer's accomplishments.

### *Assessing Workplace Culture*

A recent study of employment practices indicated that a workplace that supports equal opportunities for people with disabilities through its policies and practices, generally have higher relative wages for employees with disabilities (Jones & Latreille, 2010). It is critical that the employment professional assist the person in assessing the culture of the organization where placement is being considered to ensure that the environment will enable the person with a disability to work effectively. Table 18.2 provides some basic strategies for accessing workplace culture. While some tools exist to help an RP to identify which organizations are seeking to proactively diversify their workplace to include people with disabilities (see, e.g., the Workforce Disability Inclusion Assessment Tool; U.S. Business Leadership Network, 2011), it can be difficult to get a feel for the culture of any organization during the job search process. An effective method of assessing culture might include talking to current employees at the organization. Ask employees questions about how long they have been at the company, the type of support available from management and coworkers when learning new skills, and the level of collegiality. A tour of the building may also provide valuable information. The tour will give you an opportunity to view the physical layout of the office (i.e., accessibility and location of core work) and the ambient environment (i.e., noise level, cubicle farms, and coworker interactions) to help gauge if it is appropriate for the person with a disability. It may also be helpful to sit down with a manager to discuss the kinds of skills the organization values and the level of support that may be available in the specific work unit. Questions about workplace culture (i.e., management style) may also be asked during this interview. These are all strategies that can be employed by the person with a disability themselves or in partnership with an employment services provider. It might also be possible to arrange a situational assessment to actually try out a job to see if it will meet the needs of the candidate with a disability. Before an interview, the person with a disability and the RP should review the company's website. There may be information about the lived experience of employees who work for the company and you may also find hints as to

**Table 18.2** *Tips for Assessing Workplace Culture*

| |
|---|
| • Talk to current employees about the workplace |
| • Get a tour of the building |
| • Talk to a manager about the skills the organization values and the support they offer their employees |
| • Take a look at the company website |

the value the company places on diversity (i.e., flex place policies, employee resource groups for employees with disabilities, etc.). This will also illustrate to the hiring manager that you have an interest in the company besides just getting a job.

It is important to remember that any job interview serves two purposes. Not only does the person with a disability have to convince the employer that he is the right person for the job. It is also a perfect opportunity to evaluate the culture of the organization where the person with a disability may be working. Think about the things that the person identified as important to them for the job search process and help him to frame questions that would highlight those areas in a way that demonstrates a commitment to a good employer/employee fit and draw attention to positive attributes.

### *Customized Employment*

Many RPs approach their job with an erroneous assumption: All jobs begin with a job description. This is simply not true. Some jobs start with the employer noticing inefficiencies in their office. Perhaps their core staff is spending too much time on marginal job functions. Some jobs start with a discussion about new opportunities in their communities. Perhaps a grocery store could serve some of its clientele with a delivery service. The only way to identify these opportunities is to talk with employers. The employment specialist should schedule meetings with employers to conduct informational interviews. At this point, the goal is not to get a job for a particular person, the goal is to identify opportunities and seek information. Helping an employer to identify needs or potential for efficiencies within their organization is a critical strategy for successful placement for job seekers with disabilities (Luecking, 2008). In fact, companies report that having information about performance, productivity, and impact on a company's bottom line as the most "persuasive information" about hiring people with disabilities (Domzal, Houtenville, & Sharma, 2008, p. 2). Therefore, the employment specialist should focus on developing a series of probing questions about that business to pull out potential opportunities. Here are some examples:

- Which duties do you use temporary services for?
- Many businesses have to pay time and a half for overtime. Is this something you have experienced and if so, is this an issue?
- Are there routine tasks that take employees away from their main area of expertise that they are really hired for?
- Are there tasks that should be done more often, but you do not have sufficient time of current employees to do so?

If these questions elicit indications of unnecessary expenses, inefficiencies, or other opportunities for the people you serve, let the employer know that you may have a solution. Present the qualifications or the job seeker you represent professionally and focus on how they can help increase efficiencies or save money for the company. The responsibility of the employment specialist to the employer is to identify potential and propose innovation to help the company meet a need. This creates a win–win situation for both the employer and the person with a disability. Before you leave this meeting with an employer, discuss next steps to ensure that you can follow through on the discussion.

Through this process, an RP can identify opportunities for customized employment. The U.S. Department of Labor states that customized employment is a flexible process as the goal is to identify specific employer needs and match them to a job seeker. Customized employment requires the employment professional to assist a person with

a disability to create a position in the community, either within an employer organization or in self-employment that capitalizes on the job seeker's strengths, and meets the needs of the employer or the local community (U.S. Department of Labor, Office of Disability Employment Policy (ODEP), 2009). The U.S. Department of Labor recently released a series of videos that highlight the benefits of customized employment.

Customized employment requires that RPs do a great deal of homework, both to understand the strengths, need, and preferences of the job seeker with a disability, and to understand the needs and opportunities of employers and/or the local community (Inge & Targett, 2008). Creating customized employment opportunities for people with disabilities through job restructuring allows you to tailor the position to meet the person's skills and interest while also benefitting the employer. You may be able to offer to save an employer's money or to make additional money by creating efficiencies in business operations. You may be able to expand a customer base into a new area with a new service. You may be able to create a competitive edge for a company by offering a new service that competitors do not offer.

In her book, *Beyond Traditional Job Development* (1994), Denise Bissonnette talks about using employment proposals for the employment professional to present these innovative restructured positions to employers. Employment proposals highlight a candidate's strong points and illustrate how the job seeker can help the employer to meet a need. Employment proposals are developed for specific job seekers at specific organizations and are based on the employment professional's research about that organization and the opportunities that they identify in discussion with the employer (Service Canada, 2011). These documents are usually one- to two-page letters that outline the employment professional's understanding of the business' problem and how the job seeker with a disability can help to solve the problem or benefit the business with a proposed position. It is important to provide details in the employment proposal. The number of hours the person will work, the salary they wish to receive, and any accommodations they will require to do the job. This is an excellent opportunity to address any employer misgivings about hiring a person with a disability. The employment professional can clearly address how the person will complete the work outlined as part of the proposal process. If the job seeker that you are representing will complete his job duties a little differently than someone with similar duties, highlight that in the employment proposal. This will allow the employer to ask questions about the approach and create an open dialogue. Employers often cite concerns about costs for accommodations, and fear that people with disabilities cannot manage the work (Houtenville & Kalargyrou, 2012); so, to be sure to clearly articulate things like potential cost of modifications or accommodations, the person will need to perform the specific tasks outlined and spell out how the tasks will be performed. Finally, it is critical to provide clear information on next steps, including when you will contact the company to arrange an interview for the job seeker (Bissonnette, 1994; Service Canada, 2011).

### *Entrepreneurial Employment*

In some cases, a need in the community may lead an RP and the person with a disability they are working with to identify and develop entrepreneur opportunities within a community. Self-employment is a viable option for some enterprising people with disabilities as it allows them to better balance the demands of working with the needs of their disability (Pagán, 2009). Supporting people with disabilities in self-employment requires a somewhat different skill set than RPs may be accustomed to, such as creating a business plan and ensuring start-up and operational costs can be covered (Galle & Lacho, 2009).

RPs should seek support from mainstream organizations such as the Small Business Development Centers funded by the Small Business Administration who provide support to entrepreneurs (New York Makes Work Pay, 2010; Small Business Administration, n.d.). Additionally, there are model self-employment programs across the country that can inform budding entrepreneurs and their ESP, such as Start-Up NY.[11,12]

Self-employment outcomes may be the result of attempts to create customized employment for a job seeker with a disability. A mother of a young adult with a disability overhears a conversation among other mothers in her community who indicate that they don't have time to cook dinner and are tired of ordering pizza. They joke about the kind of meals they would like to have and what they would be willing to pay. She muses about what a good cook her son or daughter is and suddenly the idea for a home-based business that delivers home-cooked meals is born. This example makes the idea of entrepreneurship sound deceptively easy; in reality, it is not simple to support a job seeker on this path. In 2006, only 1.855% of successful VR placements were in self-employment (NY Makes Work Pay, 2010). However, creating a position through customized employment allows you to shift the question that the prospective employee must ask themselves as they embark on the job search. The question shifts from "who is willing to hire me" to "how can I get paid to do what I am good at?" In this scenario, the value is on the person with a disability's skills and talents, which will result in a valued and valuable employment experience.

## ENSURING SUSTAINABLE EMPLOYMENT

No matter what position the job seeker with a disability obtains, the RP should be sure of two things: first, that the position is sustainable, and second, that the position should represent a good match between the employer and the employee. The goal of any RP is a placement with longevity, where the employee is thriving in the work and the employer is able to clearly see the benefits of the new hire. There should also be room for growth available in the position. In other words, look for careers for people with disabilities, not just jobs. Second, the RP must help the person to negotiate conditions of employment (including accommodations and supports) that will ensure success in the position.

### *Accommodation and Disclosure*

Accommodations allow people with disabilities to participate in the interview process and to perform jobs. Employers who make accommodations listed a number of direct and indirect benefits, including retention of qualified employees, increased employee productivity, increased interactions with coworkers, and increased interactions with customers (Hartnett, Stuart, Thurman, Loy, & Batiste, 2011). Whatever form the accommodations takes (technology, alternative communication, and relocating the interview), the process to receive an accommodation starts with disclosure of disability. The disclosure does not have to be in writing and it does not have to include technical jargon (EEOC, 2002), but it does have to be a clear statement that because of some medical issue, the person with a disability requires some support to participate in the interview process or complete the essential functions of the job. In some cases, the person with a disability will negotiate the accommodation themselves. In other cases, it will fall to the RP to request and assist in negotiating the reasonable accommodation. If you intend to disclose on behalf of a person with a disability, it is advisable to discuss the particulars of what

will be shared with an employer and have the job seeker sign the document indicating their agreement to share the information with potential employers (Inge & Targett, 2008). During this discussion, help the person with a disability to identify when, why, and how much disability information will be shared. Let them know that disclosure is not mandatory and even if they choose to disclose it does not mean that everyone at the potential employment location will know the particulars of their disability. Whether the job seeker or the employment professional discloses the disability, it is critical that the person with a disability themselves be actively involved in the informal negotiation process with the employer to ensure that the best possible accommodation is identified and implemented. Remember, while the person with a disability can and should give input into what kind of reasonable accommodation will work best for them for the interview or on the job, it is ultimately the employers' decision as to what gets implemented. The most important thing to remember during the reasonable accommodation discussion is that the goal is to create a solution that allows the job seeker to meaningfully participate in the interview process and in the job. Trusting relationships and thoughtfully crafted discussions with all parties will ensure that the right balance is achieved, jobs are maintained, and confidentialities and preferences are respected.

### *Social Integration at Work*

Transition to work is facilitated by ensuring that newly hired employees are integrated into their work units and into the social fabric of the company at large. This concept not only applies to individuals with disabilities but also to the workforce in general. It is not surprising therefore that in recent years companies have moved from focusing on diversity alone to directing their attention to inclusion, realizing that the latter brings out the best in all employees and fosters the highest level of engagement and productivity (Hyter & Turnock, 2009). To achieve better integration, especially for those employees with disabilities who have no prior work experience, introduction to informal networks and company culture is most helpful, as is to invite them to take lunch and other breaks together. Such social activities provide an excellent opportunity for creating relationships, increasing acceptance, and raising comfort levels, all factors that contribute to job satisfaction and job retention not only for the employee with the disability but also for the mentors and coworkers as well. For many individuals, having a stake in another person's growth and development is ery rewarding and satisfying as well as working for a company that supports such efforts.

The same principles and strategies that companies have developed for building an inclusive workplace should apply to employees with disabilities. As part of a strategy to increase diversity and create competitive advantage in their field, Merck has implemented strategies to retain and support a workforce that includes people with disabilities. Merck provides a great deal of support to new employees to ensure they can easily integrate into the workplace. Their human resources department works with new employees to create a "customized action plan" to facilitate on-boarding; this living document is updated throughout the employee's tenure with the company. Merck also uses its Employee Resource Group to support networking and leadership development with its employees with disabilities (U.S. Business Leadership Network, 2011).

All successful companies recognize that employees are their most important assets. Turnover is costly and has a significant negative impact on productivity and morale. Job satisfaction is the driving force behind retention and employers play a key role in

creating an environment where all employees can grow, contribute equally, and feel welcomed and comfortable.

### *Ongoing Support*

For people with disabilities, employment success is more likely determined by the degree to which they are integrated and supported in the workplace. The extent of supports needed is dependent upon the nature and severity of the disability, as well as prior work history. In some cases, an employee with a disability will require a job coach to acclimate to the work environment; in others, they may only need someone to call if they run into a difficult situation at work. It is important that the RP work with the person with a disability to create a clear support plan to ensure their success, and that they check in with them frequently to ensure that they are receiving sufficient support to be successful in the new job.

Ongoing support may have to be provided to both the individual with a disability and their employer. A qualitative study completed with employers in Australia indicated that employers do not feel that they have the knowledge and capability to support people with disabilities as employees. Employers in this study indicated that they wanted help in building their capacity to support productive employees with disabilities (Waterhouse, Kimberley, Jonas, & Glover, 2010). As an RP, the ongoing guidance that you provide to employers should an issue arise in managing an employee with a disability will be critical to ensuring sustained employment and in ensuring your ongoing relationship with employers. The RP may need only to remind the organization of a basic fact about managing people with disabilities—that you should do so as you manage all employees: Develop clear workplace policies that address workplace accommodation, leave policies, and conduct policies and apply them evenly to all employees.

Partnerships with RPs who can positively contribute to the operations of the company help to ensure the success of employees with disabilities within employer organizations (Luecking, 2008). RPs carry a great deal of knowledge around accessibility, universal design, the ADA, job analysis, job accommodations, supporting people with disabilities, and strategies to effectively communicate with people with disabilities, all of which can be invaluable to employers. However, in order to provide effective input into an organization's operations, an RP must first develop an understanding of the culture and current operations of the company (Emmett, 2008). This understanding helps to build a foundation for the RP to provide information and advice in ways that it can be heard and effectively utilized by the employer. Managers and supervisors are the key arbiters of the employment success of people with disabilities in the workplace. They determine who gets hired, who gets promoted and who gets support at work. In some cases, managers are concerned that employees with disabilities will demand more of their time and energy (DePaul, 2007). RPs are uniquely positioned to support the professionals who directly manage people with disabilities on the job.

## SUMMARY: CONTINUING YOUR PROFESSIONAL JOURNEY

In this chapter, we discussed the elements of practice that drive successful job development. To summarize, we provide a summary table (Table 8.3) of these elements of practice and then discuss ways to develop competence.

Table 18.3 *Critical Components of Professional Practice*

| Elements of Practice | Description |
|---|---|
| 1. Understand change | • Anticipate how economic, legal, demographic, and policy changes impact job seekers with disabilities<br>• Understand the legislative and cultural context of disability in America<br>• Focus on high-growth job sectors and types |
| 2. Take on the lens of the employer | • Speak the language of the employer<br>• Know what the employer needs before they do<br>• Respond to what matters to them<br>• Track businesses and employers; what are their opportunities and challenges?<br>• Prepare to show the return on investment of hiring people with disabilities |
| 3. Reach out and connect | • Go to businesses/employers; do not wait for them to come to you<br>• Be where employers are: Join organizations, participate in events where businesses and employers are<br>• Tailor your message to each employer or business |
| 4. Make a compelling case | • Make the case for employing people with disabilities; focus on success stories<br>• Describe specific cases where there was a return on investment for employing people with disabilities |
| 5. Build opportunity; do not wait for it | • Focus on work that needs to be done rather than job announcements<br>• Propose ways to get work done rather than waiting for job openings to be advertised |
| 6. Forge mutually beneficial relationships | • Find new ways for employers to solve their workforce and work process challenges<br>• Become a diversity partner; enable employers to invigorate their diversity initiatives by meaningfully including people with disabilities<br>• Drop employers or businesses who do not demonstrate a good faith commitment to employing people with disabilities at equal wages and benefits<br>• Conduct informational interviews with potential employers |
| 7. Understand the job seeker | • Ask powerful questions of the job seeker<br>• Pay attention to the job seeker's aspirations and interests<br>• Understand how the disability might impact the job<br>• Match the job seeker's work style with the work environment |
| 8. Support the job seeker in advocating for themselves | • Ensure that job seeker understands their rights around disability disclosure, accommodation and equal treatment in the workplace<br>• Support the job seeker in making a decision about when or if to disclose a disability<br>• Understand the workplace culture<br>• Prepare job seeker to become socially integrated into the culture of the workplace |
| 9. Customize your approach to each job seeker | • Use innovation and creativity to identify accommodations<br>• Identify accommodations that will work for the person, the job and the employer<br>• Create powerful job seeking materials, such as résumés or portfolios<br>• Rehearse likely interview scenarios, including the job seeker's decision about disclosure<br>• Consider self-employment options |
| 10. Sustain the effort | • Provide ongoing support<br>• Be effective in the long term for both the job seeker and the employer |

We end this chapter in the same way we started it—by pointing out that the work of the RP is important, not only just to people with disabilities but also to businesses, employers, policy makers, and communities. Though this work can be at times demanding, frustrating, and perplexing, it is always worthwhile to return to this main truth: The work of RPs contributes significantly to improving the employment outcomes and the lives of people with disabilities.

## NOTES

1. To access the handbook, see http://www.bls.gov/ooh
2. We refer readers to the following resources for background on these programs:
   www.ssa.gov/disability
   www.ssa-custhelp.ssa.gov/app/answers/detail/a_id/245/~/difference-between-social-security-disability-and-ssi-disability
   www.ssa.gov/dibplan/index.htm#ssi
3. For more information, see www.eeoc.gov/laws/statutes/adaaa_info.cfm
4. For more information on these three programs, see www2.ed.gov/about/offices/list/osers/products/employmentguide/appendix-3.html
5. For more information on this program, see www.dol.gov/odep/topics/FederalContractorRequirements
6. For more information on this program, see http://www.opm.gov/disability/appointment_disabilities.asp#1
7. For more information, see www.whitehouse.gov/the-press-office/2012/02/03/president-obama-s-plan-put-veterans-back-work
8. For more information, see www.usbln.org/pdf-docs/DSDP_Certification_Brochure.pdf
9. For additional employer stories and videos, testimonials and case studies that can be found at www.askEARN.org
10. The Society for Human Resource Management is a professional organization that serves HR professionals and advances the interests of the HR profession. It has both local and national chapters. Membership includes company presidents, owners, and all levels of human resource professionals.
11. See whitman.syr.edu/eee/startupny and the Exceptional Entrepreneurs of Louisiana (see www.trac.uno.edu/selfemploy.htm).
12. There are some additional resources for entrepreneurship available here: www.nymakesworkpay.org/rny-biz.cfm

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# Chapter 19: Supported Employment/ Customized Employment

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***After reading this chapter, you should be able to:***

1. Define supported employment services.
2. Describe the evolution of supported employment and its values.
3. Discuss the supported employment literature.
4. Explain general interventions techniques in supported employment and how these benefit individuals with disabilities and employers.
5. Describe customized employment.

## THEORETICAL CONSTRUCTS AND EARLY DEVELOPMENT

In recent years, the public has often believed that individuals with severe disabilities were not employable. Today, however, society is seeing and hearing about individuals with significant disabilities working in their local communities. For many individuals with disabilities, this goal has been achieved with a vocational rehabilitation (VR) service option called supported employment.

Under the federal regulations, *supported employment* means "[c]ompetitive employment in an integrated setting with ongoing support services for individuals with the most severe disabilities … for whom competitive employment has not traditionally occurred or for whom competitive employment has been interrupted or intermittent as a result of a severe disability; and … [w]ho, because of the nature and severity of their disabilities, need intensive supported employment services from the designated State unit and extended services after transition in order to perform this work; or [t]ransitional employment for individuals with the most severe disabilities due to mental illness."

With supported employment, a person with severe disability receives individualized employment support services that are purposely designed to both gain and

maintain a job, from a VR professional often referred to as a job coach or an employment specialist. This may sound like a practical approach to assisting individuals with severe disabilities with working in their communities—and indeed it is, at least in theory. However, when it comes to implementation it is not that easy. Employment specialists must be well trained. Furthermore, some studies have noted that when employers are open to the concept of hiring a person with significant support needs that they want support from competent support staff (Post et al., 2010).

In order to gain a better understanding and fuller appreciation for supported employment, this chapter begins by taking a look at its evolution. This is followed by information on legislation, a review of literature and service implementation. Then, it concludes with a brief look at customized employment (CE); a relatively new concept that has evolved from the implementation of the Workforce Investment Act to provide employment opportunities for individuals with disabilities and embraces many of the concepts inherent to best practices in supported employment.

## Evolution of Disability Services

The concept of supported employment began in the late 1970s and at the time predominantly focused on individuals with severe intellectual and developmental disabilities. The conceptual design of supported employment was an extension of several paradigm shifts in special education and disability services. For example, the Principle of Normalization (Wolfensberger, 1972) stressed that individuals with disabilities should be provided with opportunities for social roles which a community would value. Embracing the principle had a big impact on VR services by focusing employment of individuals with disabilities away from segregated work settings such as sheltered workshops to typical community-based employment. There was also an increase in "workshops without walls," where groups of individuals with disabilities went to work in industrial settings under the supervision of employment services staff.

Also around the same time, systematic, behavior analytic approaches to employment training were being used to teach individuals with severe disabilities how to work in the community (i.e., Rusch & Schutz, 1979). These approaches involved breaking tasks down into stimulus response chains and using prompting hierarchies and reinforcement to teach them. For example, Marc Gold (Gold, 1980) developed an instructional technology called Try Another Way to systematically teach individuals with severe intellectual disabilities to perform complex tasks such as assembling bicycle brakes. In 1976, Paul Wehman, PhD, described an approach of using a VR specialist to teach skills systematically on the job, collecting data to measure learning, and then as indicated gradually fading instructional assistance. Rather than segregating individuals with disabilities for vocational training, skills training would take place on the job, an approach that came to be known as "place, then train."

These changes were brought about by gradual shifts in values within the service delivery system and within the disability community itself, and included shifts in values in vocational support models. These will be addressed in the following section.

## Evolution of Values

Supported employment would not have emerged as a service option without a shift in values within society and within disability services. In the past, the notion that a person with a significant disability could contribute to society was incomprehensible to many

people. For instance, it was not unusual for many to believe that something needed to be done with a child who was born with major physical and or cognitive disabilities. The following were the value shifts that facilitated the development of the supported employment model.

### From Sheltered Work to Supported Employment

Sheltered workshops were first established in France in the 16th century. During the 18th century, they expanded across Europe and in other parts of the world including the United States. These workshops were modeled after the workhouses created for orphans and others in the early days of industrialization. The originators of the workshops, often charities and religious organizations, were trying to meet community needs: Help the poor, protect communities from the menace of deviants, protect inmates from being taken advantage of by others, and, when possible, rehabilitation (Wolfensberger, 1972).

After World War II, the United States experienced an increase in the number of sheltered workshops in order to serve adults with intellectual disabilities. For instance, between 1948 and 1976, the number of sheltered workshops in the United States increased to about 3,000 (U.S. Department of Labor, 1979). In 2007, an estimated 136,000 adults with disabilities attended sheltered workshop in 42 states in the United States (Butterworth et al., 2009).

A number of issues arose with sheltered workshops. For example, participants typically engage in menial and repetitive tasks in an isolated setting. Additionally, because of special subminimum wage certificates issued by the U.S. Department of Labor, participants are often paid below the federal minimum wage (and often well below), leading to charges of exploitation (National Disability Rights Network (2012). A key justification of the sheltered work model is that it offers an opportunity for individuals with disabilities to learn valuable skills that will prepare them for future work. However, this has been well refuted by the research literature. For example, Cimera, Wehman, West, and Burgess (2012) examined the national database of VR clients with autism and found that prior sheltered work experience did not increase the likelihood of successful community-based employment. In recent years, VR regulations were revised to eliminate sheltered employment as a viable employment outcome for VR clients.

Unfortunately, the evolution of values has not led to an end to segregated and sheltered workshops. Today, across the United States, close to half a million individuals with disabilities are being isolated and financially exploited. Data from the Congressional Research Service from the Wage and Hour Division of the U.S. Department of Labor (2010) reports there are 3,438 certified agencies paying subminimum wages. In the words of Curtis Decker, "Simply put, the reality for many workers with disabilities is that sheltered workshops are merely a different kind of plantation."

### Shift From Medical to Social Model

Supported employment also differed greatly from the prevailing "medical model" in which individuals with disabilities were viewed as "defective" or "diseased," in need of lifelong medical care and hospitalization. They were typically labeled according to their disability and then rehabilitation was provided based on a prepackaged set of services

(i.e., everyone with mental illness needed the same kind of treatment and help) with little or no input from the "handicapped." The plan was left to doctors and specialists and the individual with the disability had little say.

In the 1980s, the social model emerged, which helped set the stage for supported employment. In contrast to the medical model that focuses on a person's medical condition as the main barrier they experience in their day-to-day lives, the social model asserts that the main barriers an individual with a disability faces comes from the way in which the society is organized, rather than the person's impairment. For instance, if an individual who uses a wheelchair wants to access a building and cannot, according to the social model, the individual is disadvantaged due to the environment not the physical impairment (i.e., paralysis due to a spinal cord injury).

### Characteristics and Values of Supported Employment

The values associated with supported employment are inherent within the characteristics of the individual competitive employment approach that are listed in Table 19.1.

It is hard to believe, but today, even after years of research, the debate continues about where individuals with disabilities should work. Fortunately though, every day, more and more individuals with severe disabilities are going to work in their communities with supported employment. These individuals are a living proof that people with significant disabilities can work in a real job for real pay when the right type, level, and intensity of support is available. They also attest to the fact that individuals with disabilities should have as much choice and control over where they work and what they do as anyone else.

Table 19.1 *Values and Characteristics Associated With Supported Employment*

| |
|---|
| **Everyone should have the opportunity to work a job in their community:** Reserved for individuals with most severe disabilities; an individual goes to work in a community in a real workplace; not segregated settings like workshop or groups of individuals with disabilities working in business (i.e., enclave or work crew, etc.) |
| **Locating work must focus on an person's abilities not weaknesses:** Quality time is spent getting to know the job seeker in order to understand abilities, interests and potential support needs; this information is essential to representing the job seeker to business and developing jobs |
| **Business is a customer of services:** Quality time is spent to understand operations and needs in order to determine if a specific applicant can bring value to the place of employment by filling a existing position or creating a job |
| **People with the most severe disabilities should have real work for real pay:** Earnings are similar to others who are doing the same type or similar work in the setting (at least minimum wage) |
| **Employing a person with a disability is not all that different from employing anyone else**: All workers in a business receive some level of support and some require specialized support at some time |
| **Integration is not a passive process:** New hires receive support to help them develop strong, positive relationships with management and coworkers and are active in the work culture |
| **Supports are provided or facilitated in a way to complement existing employer practice and as possible in the least intrusive way to ensure employee and employer satisfaction:** If the new hire is not learning the job, problems with instruction or supports should be examined. Data must be collected to determine the effectiveness of on and off the job site training and supports |
| **Long-term ongoing follow-along services:** Ongoing support at a job helps ensure an employee continues to thrive at work and the employer remains satisfied |

### Supported Employment Legislation

The idea that a person with a severe disability would be assisted with locating work in the community and then trained or supported on the job was revolutionary, but not altogether embraced by the disability service community. Fortunately, federally funded demonstration projects showed how individuals with the most severe disabilities could work in the community with ongoing support and other appropriate services. This led to the inclusion of supported employment in the 1986 Rehabilitation Act Amendments (PL 99-506) as a viable VR outcome within the federal/state VR service system, and provided funding for more demonstration projects. This opened the doors to community-based employment for many individuals with disabilities who would have very likely been deemed as unemployable or unqualified for anything other than segregated work (Wehman, 2012). In the years that followed, service providers and end users (individuals with severe disabilities) grew rapidly as state agencies received assistance with developing and implementing supported employment services, through a supplemental program designed to help individuals with severe disabilities, who might not otherwise have been served by the traditional services offered by VR.

According to the Code of Federal Regulations, under this program, the following activities are authorized:

- Assessment needed for the development of an individualized written rehabilitation program.
- Development of and placement in jobs for individuals with the most severe disabilities.
- Provision of supported employment services that are needed to support individuals with the most severe disabilities in employment, such as intensive on-the-job skills training and other training provided by skilled job trainers, coworkers, and other qualified individuals, and other services in order to achieve and maintain job stability.
- Follow-up services, including regular contact with employers, trainees with the most severe disabilities, parents, guardians or other representatives of trainees, and other suitable professional and informed advisors in order to reinforce and stabilize the job placement.
- Discrete postemployment services following transition that are unavailable from an extended services provider and that are necessary to maintain the job placement, such as job station redesign, repair and maintenance of assistive technology, and replacement of prosthetic and orthotic devices (29 U.S.C. 795l).

With the advent of supported employment, suddenly, the work readiness concept in VR was no longer relevant. This is because supported employment revolves around the idea that meaningful employment should be an option for everyone regardless of label or perceived deficits. There is a presumption of employability for everyone in some sort of job related to the person's interests and abilities. Then, what remains, is to figure out the types and level of supports needed to ensure success in a meaningful job that leads to a fulfilling career for the individual and a satisfied employer. At last, no longer were individuals with significant disabilities required to learn prerequisite skills in segregated settings prior to going to work. Instead of training an individual with a disability outside of a workplace to get ready to work (i.e., work readiness) and then try to locate employment, now research backed a model that emphasized the effectiveness of obtaining employment first and then training the newly hired employee the skills needed on the job.

In the years that followed, the concept of supported employment flourished and developed. Today, supported employment is recognized by many as the most important service option available to individuals with severe disabilities. However, it should be noted that although supported employment has been in place for more than 30 years, organizations still struggle to recognize for whom this intensive VR strategy is reserved for—individuals with the most significant disabilities who have no or an interrupted work or intermittent employment record and are in need of ongoing supports (for the life of the job).

## *Efficacy of Supported Employment*

Over the years, research has demonstrated how supported employment can be used to assist individuals with severe intellectual and developmental disabilities with gaining and maintaining "real work for real pay" (i.e., Wehman & Kregel, 1985; Wehman, 2012). And while it was initially conceived as an employment support service for those individuals, today, supported employment has also been instrumental in assisting individuals with mental illness (i.e., Bond et al., 2001), traumatic brain injury (i.e., Wehman et al., 1990; Wehman, Targett, West, & Kregel, 2005; West, Target, Yasuda, & Wehman 2012), autism (i.e., Howlin, Alcock, & Burkin, 2005; Schaller & Yang, 2005; Wehman, Smith, & Schall, 2009), and physical disabilities (i.e., Inge & Moon, 2011; Inge, Wehman, Strobel, Powell, & Todd, 1998), with employment. A brief service description of the individualized approach to service delivery is offered below, followed by a brief review of the literature across various disability groups.

### Individualized Approach

Supported employment is characterized by individualized employment support, provided and/or facilitated by an employment specialist. These services are specifically tailored to assist an individual with a severe disability with gaining and maintaining competitive employment. To begin, the employment specialist works one to one with the individual with the disability to assist the individual by identifying their vocational strengths, interests, and potential support needs. Next, the specialist represents the individual job seeker to potential employers in hopes of creating a viable work opportunity for both parties to consider. Whenever the job seeker is hired, the specialist provides or facilitates an array of workplace supports that typically includes on the job skills training. Sometimes, the specialist is required to assist the new hire with doing certain job tasks while the individual is learning the job in order to ensure the employer that the work is getting done. This work completion guarantee offers an incentive to employers to hire someone who will likely require more extensive job site training than someone without a disability. Eventually, when the employee is able to demonstrate an ability to meet the employer's job performance expectations, the specialist fades from the job site; however, the specialist continues to monitor how things are going and provides or facilitates additional support either on or off the job if needed (Wehman, 2012). The reader may note that this approach is different than the mental illness Individual Placement Support (IPS) model, briefly reviewed in the following section, in that sometimes the person with MI does not receive intensive support with developing a job or on the job site support, but rather off the job site supports to gain and maintain work instead.

### Mental Illness

Much of the more current research focuses on using evidence-based supported employment (e.g., the IPS model) in adults with severe mental illness to assist them with the ongoing support they need to obtain and maintain jobs (i.e., Becker et al., 2001; Bond, Becker, et al., 2001; Bond et al., 2001, 2007; Mueser et al., 2004; Salyers et al., 2004). The IPS model is an evidence-based vocational intervention that targets individuals with severe mental illness with customized, long-term, and integrated vocational and clinical services to help them gain competitive employment (i.e., Becker, Swanson, Bond, & Merrens, 2008; Drake & Bond, 2008). Research indicates that individuals report improvements in relationships, self-esteem, hope, and life satisfaction, in addition to gains in employability, work hours, and income (i.e., Bond, Becker, et al., 2001; Mueser et al., 2004). Findings also show that individuals who receive employment-specific vocational services and who remain for longer durations in vocational programs achieve significantly better outcomes than those who receive fewer vocational services for shorter durations (Cook, 2006).

In a recent study, Ferguson, Xie, and Glynn (2012) reported that a supported competitive employment model is effective in assisting homeless young adults with mental illness with gaining and maintaining work. Preliminary results reveal that it appears to be effective.

### Traumatic Brain Injury

In the late 1980s, supported employment evolved to serve individuals with traumatic brain injury (TBI). Early research revealed that it could improve work outcomes for individuals with TBI (Shames et al., 2007; van Velzen et al., 2009; West et al., 2012). In a more recent study, Hart et al. took a look at type, amount, and location of treatment prospectively for 6 months after return to work for 65 moderate to severe TBI treated at five TBI model systems centers. These results revealed that the centers providing intensive treatment at work served those with more severe injuries for longer time and cognitive speed and emotional distress predicted certain aspects of amount and type treatment. Although, three-fourths of the sample remained employed at 6 months, and job coaching and other services are important, the unique effects of treatments on outcomes could not be determined.

Because individuals with TBI have cognitive difficulties and possible social behavior problems, during service, implementation of on-the-job-site interventions typically focus on specific task training, the use of compensatory strategies, and social skills training. A few examples of strategies used to train individuals with TBI are provided in Table 19.2.

**Table 19.2** *On-the-Job-Site Training Strategies for Workers With TBI*

| |
|---|
| **Demonstration:** Employment specialist demonstrates and explains how to perform a task and then the worker tries it while receiving prompts if needed. |
| **External compensatory memory strategies:** Worker is taught to use checklist or visual cues to help complete work task or sequence. |
| **Role playing:** Employment specialist explains a situation followed by a discussion on possible ways to handle it. Then the worker practices a response. |

### Autism

There is limited research outlining the specific services and supports required by individuals with autism spectrum disorders (ASD). However, some examples of a supported employment approach have been described (i.e., Hillier et al., 2007; Howlin et al., 2005; Lawer et al., 2009; Wehman, Datlow, Smith, & Schall, 2009). Research has shown that supported employment increased employment rates, raised salaries (Howlin et al., 2005), and improved the quality of life of individuals with ASD (Garcia-Villamisar, Wehman, & Navarro, 2002). Garcia-Villamisar and Hughes (2007) found improvement in cognitive performance as a result of going to work using supported employment services. Currently, a number of demonstration projects are looking at the implementation of a supported employment approach to assist youth with autism who are transitioning from school to the world of work (Wehman, Smith, & Schall, 2009). Some specific steps to help ensure success in the workplace are listed in Table 19.3.

### Physical Disabilities

Supported employment has also assisted individuals with severe physical disabilities with employment (Inge & Moon, 2011). The on-the-job-site training issues for individuals with physical disabilities can be quite different from those with cognitive disabilities. In this instance, the employment specialist support on the job often relates to identifying and developing ideas on needs assistive technology and once in place teaching the new hire how to use modifications, adaptations, and

**Table 19.3** *Tips to Help Ensure Success at Work for Individuals With ASD*

| |
|---|
| **Make a match between the job and the person's preferences, the social and communication demands of the environment and coworker tolerance for differences** |
| • Assess job to determine if it includes tasks preferred by job seeker and if not, try to modify the job |
| • Assess the level of communication and social skills needed and determine if the individual has those skills and if not, whether or not the individual can be supported in this area |
| • Assess the culture of the organization and workplace (i.e., is it supportive of its workers?) |
| **Prepare employer and coworkers** |
| • Explain diverse behaviors the new hire may display if necessary |
| • Teach relationship behaviors |
| **Provide job coaching to provide and facilitate necessary support to ensure the new hire learn to perform the job to meet the employer's expectations** |
| **Make changes to the work environment to meet the social and communication needs of the new hire** |
| • Negotiate consistent schedule |
| • Provide visual organizers for job task |
| • Provide direct feedback on performance |
| • Prepare employee for changes at work by explaining those in advance |
| **Provide ongoing long-term follow along throughout job tenure to support the employee during employment** |

compensatory strategies to assist the person with more independent functioning. In addition, the employment specialist often helps perform the work while getting the necessary assistive technology created or purchased and put into place. Oftentimes, a personal assistance is also needed to help the employee with taking breaks on the job (i.e., restroom, eating, drinking, etc.).

The remainder of this section will review some of the literature related to serving individuals with developmental and intellectual disabilities. The reader is reminded that it is from this early research that supported employment flourished and the other models of support were developed for other disability groups (i.e., mental illness, TBI, etc.).

#### Intellectual and Developmental Disabilities

In the early 1980s, there was a significant expansion in the number of agencies providing supported employment services. Wehman (1986) reported the average length of employment for 19 months in a 6-year follow-up study. Wehman noted that, given the type of jobs that individuals were doing, general rates of job turnover for nondisabled coworkers was 5 months. Research revealed (Shafer, Wehman, Kregel, & West, 1990) that employment outcomes associated with the individual placement option were superior to outcomes associated with other models (i.e., group models). Growth continued in the 1990s (West, Revell, & Wehman, 1992). In a national survey (Revell et al., 1994), 42 states reported that a total of 74,960 individuals participated in supported employment in 1991. People with intellectual disability accounted for over 62% of the participants. The individual placement model (rather than a group approach, which is no longer advocated for today) was used 80% of the time.

A few of the early studies have reported that the severity of disability appears to be inversely correlated with success in achieving employment and associated outcomes such as wage levels and work integration (i.e., Mank, Cioffi, & Yovanoff, 1998, 1999). Faubion and Andrew (2000) also demonstrated that severity of disability and age were significantly negatively correlated to whether an individual would be referred for supported employment services. Notably, this occurred despite the fact that this service is intended for those individuals with "the most severe disabilities."

Previous research has indicated that consumer, service agency, and community characteristics are associated with employment outcomes for people with disabilities. Individual characteristics, including age, sex, race, IQ, health, and level of disability, have been found to influence employment (i.e., Moore, Harley, & Gamble, 2004; Moran, McDermott, & Butkus, 2002). Research has also suggested that service agency qualities, county characteristics, the economic climate, and the provision of VR or job coach services affect employment rates for people with disabilities (i.e., Bolton, Bellini, & Brookings, 2000; Gray, McDermott, & Butkus, 2000; Moore, Feist-Price, & Alston, 2002). In a more recent study (Howarth et al., 2006), the most frequent reasons reported for job loss in these individuals included job performance problems (28.1%), a decision to quit on the part of the employee (21.9%), health problems (10.9%), and employer lay-offs (10.9%). Only 38% of individuals who experienced an interruption in employment in 2002 successfully regained employment in 2003. Individual and service agency characteristics, including race, agency size, and use of an employment specialist, were found to be significant predictors of reemployment for these individuals.

The most important finding from these analyses is that employment specialists continue to be successful in obtaining employment for individuals with IQ less than 40. This is noteworthy because it supports the original intent of supported employment to use employment specialists with those individuals with the "most severe disabilities."

### Workplace Inclusion

Early on, it was recognized that workplace inclusion was critical and key to successful outcomes (i.e., Wehman, 2012). For example, Butterworth, Hagner, and Helm (2000) reported social integration outcomes are enhanced when the workplace culture is evaluated given consideration when assisting individuals with developing work opportunities. For some individuals, success at work appears to depend on the use of natural supports whereby a coworker takes on some responsibility for assisting the individual on the job. This may include a variety of supports, including job skills training, communication, or self-management.

Researchers have also reported higher self-esteem and satisfaction with work and services among individuals who used a supported employment approach (Griffin, Rosenberg, & Cheyney, 1996; Test et al., 1993). One of the leading researchers in the area of self-determination reported those who participated in competitive employment reported feeling a greater sense of control over their lives than those in a sheltered setting or who were unemployed (Wehmaner, Shogren, Palmer, Williams-Diehm, Little, & Boulton, in press). Research has also examined the impact of employment on personal well-being (Jahoda, Kemp, Riddel, and Banks 2007). People with intellectual disabilities in competitive employment were found to enjoy a higher level of job satisfaction and higher self-esteem than those who went to sheltered work settings.

### Cost Effectiveness

A number of studies have reported on the cost effectiveness of the supported employment approach (i.e., Cimera, 2007a, 2007b, 2012; Cimera, 2010; Hill et al., 1987; Lewis, Johnson, & Mangen, 1997). For example, in 2000, Cimera reviewed 21 cost studies and found that at the individual level, the cost–benefit ratio is almost always positive, regardless of the level of disability. Later on, Cimera (2007a) investigated the cumulative costs for supported versus sheltered employment for individuals with intellectual disabilities. Again supported employment was shown to be more cost effective. Another study (Gray, McDermott, & Butkus, 2000) revealed that expenditures on job coaches are effective, and that such expenditures may be most effective if applied in urban counties with low or intermediate unemployment rates.

A study by Cimera (2010) took a comprehensive look at 231,204 supported employees funded by VR throughout the United States from 2002 to 2007. One remarkable finding extrapolates to over $1.5 billion in cost benefits from supported employment if applied to the total number of U.S. individuals with disabilities served in segregated day placements. However, the author notes that supported employment services "will need to assist individuals with obtaining work that allows them to earn a 'livable wage'."

More recently, Cimera (2012) reviewed the literature on the economics of supported employment. By comparing results from research conducted prior to and after the year 2000, several important findings were identified. The first was that individuals with disabilities fare better financially from working in the community than in sheltered workshops, regardless of their disability. This is especially true given that the relative wages earned by supported employees have increased 31.2% since the 1980s while the wages earned by sheltered employees have decreased 40.6% during the same period. Further, supported employment appears to be more cost effective than sheltered workshops over the entire "employment cycle" and returns a net benefit to taxpayers.

The benefits gained by people with developmental disabilities by working in integrated employment settings have been reported. These include higher wages, greater independence and economic self-sufficiency, greater integration with people without developmental disabilities in the workplace and the community, more opportunities for choice and self-determination, as well as expanded career options and increased job satisfaction (i.e., Kiernan & Stark, 1986; Wehman, West, & Kregel, 1999).

### Employer Concerns and Perceptions

Some research has focused on employers (i.e., Levinson & Perry, 2009; Luecking, 2008; Luecking & Tilson, 2009; Migliore, Cohen-Hall, Butterworth, & Winsor, 2010; Olson, Cioffi, Yovanoff, & Mank, 2001; Peck & Kirkbride, 2001; Unger, 2002; Post et al., 2010). For example, Migliore et al. (2010) surveyed employment specialists and found that the practices that they used conflicted with recommended practices as cited in the literature such as recognizing the business as a customer of services, working with employers to create a job that maximizes the applicant's abilities and meets employers' needs, and finding ways to bring value to business.

In another study, Post et al. (2010) presented case studies about successful collaborations between supported employment providers and human resources managers. A number of tips were offered (i.e., do preliminary research, start at the top of a business, have letters of recommendation for services available, etc.). The authors concluded that a willingness to listen and collaborate was essential to success. Furthermore, when value can be added to business an organization is more apt to hire. This means that supported employment providers must be skilled and savvy at working with business to understand their needs and create work opportunities for the individuals they represent (Luecking & Tilson, 2009; Luecking, 2011). It has also been shown that employers are willing to consider the idea of hiring someone with a significant disability when they perceive that the provider is competent.

In summary, the extant literature, including eight randomized clinical trials, indicates that supported employment is one of the few evidence-based practices available in VR and it has been used to assist individuals with a wide range of disabilities (i.e., mental illness, traumatic brain injury, severe physical disabilities, and developmental disabilities) with gaining and maintaining "real work for real pay."

## CHALLENGES AND NEXT STEPS

Today, we know that with assistance many individuals with significant disabilities are becoming competitively employed and living independently. Since its inception, supported employment has assisted individuals with significant disabilities in achieving positive employment outcomes. However, challenges still persist. Some of the challenges still faced include conversion of day programs to integrated work options, expansion of program capacity, the need to ensure consumer choice and self-determination, and the achievement of meaningful employment outcomes. In addition, greater attention needs to be paid to employers, their perceptions, as well as the cost effectiveness associated with hiring individuals with significant disabilities should be further investigated. There is little doubt, ongoing up-to-date research in all of these areas is needed.

No matter what the individual's disability level, a key to the successful implementation of the supported employment approach are workplace support services provided and/or facilitated both on and off the job by a well-trained and competent job coach or employment specialist. In order to move forward, we need more advanced high-quality research that more clearly defines the nature of vocational intervention (independent variable) for purposes of replication and training. Conducting traditional experimental control studies in the spirit of Drake et al. (1999) and Becker et al. (2006) is recommended. In addition, long-term follow-up data (5+ years) in the spirit of Brown et al. (2006) are needed in order to see which models are working best.

## CUSTOMIZED EMPLOYMENT

The CE model was introduced conceptually by Secretary of Labor Elaine Chao in 2001 as a future trend in employment (Inge & Moon, 2011). In 2002, the Department of Labor's (DOL's) Office of Disability Employment Policy (ODEP) put forward a formal definition of CE and a major grant initiative to fund CE programs.

CE is a flexible process designed to personalize the employment relationship between a job candidate and an employer in a way that meets the needs of both. It is based on an individualized match between the strengths, conditions, and interests of a job candidate and the identified business needs of an employer. CE utilizes an individualized approach to employment planning and job development—one person at a time, one employer at a time (http://www.dol.gov/odep/documents/5853adfe_2d90_4dab_a25b_b2959464363b.pdf; retrieved July 16, 2013). The target population for CE includes any individual with complex life challenges that impede competitive employment (e.g., people with disabilities, homeless, people with limited job skills, or people who face other barriers to employment) (http://www.dol.gov/odep/documents/5853adfe_2d90_4dab_a25b_b2959464363b.pdf).

The core principles associated with CE (ODEP, 2009) are noted in Table 19.4.

Table 19.4 *Customized Employment*

| Principle | Description |
|---|---|
| Negotiation | Employers voluntarily negotiate specific job duties or expectations with the job seeker |
| Customized job description | Job tasks are carved from existing job descriptions, restructured from one or more jobs, or created so that they match the interests and skills of the job seeker, and so that they also meet a specific workplace needs of the employer |
| Person-centered services | Job seeker information is used to guide employer negotiations |
| Client control | Job seeker controls the planning process |
| Discovery process | Used to reveal the job seeker's interests, skills, and needs (but can be supplemented—not replaced—by traditional assessment) |
| Potential for advancement | Identified jobs should have the potential for advancement even if the job seeker was previously unemployed, underemployed, or never held a job |

### *Efficacy of the Customized Employment Approach*

Although there are no experimental evaluations (randomized controlled studies) of CE, an initial phase of nonexperimental research supports the potential of CE for facilitating employment in people with a variety of complex life challenges. A brief review of some of these follow:

Citron et al. (2008) describe a CE program that provided services to 200 individuals with mental illness, developmental disabilities, and addictive disorders. Among those served, 71% went to work, earning between $5.15 and $40.00 per hour. The average number of hours worked per week was 15 to 20.

Luecking (2008) report on CE services to 66 individuals with intellectual disabilities, mental illness, mobility disabilities, autism, and other disabilities. A total of 89% of the individuals served achieved employment. The individuals worked for an average of 22 hours per week and were paid between $6.15 and $18 per hour with an average of $9.31 per hour. The amount of time it took to negotiate a customized job ranged from 1 to 21 months, with an average of about 5 months.

Finally, Elinson et al. (2008) published an evaluation of outcomes across 31 of the ODEP demonstration programs, using a one-group pretest–posttest design. The programs served a combined 6,555 individuals over the course of 5 years, including people with psychiatric disabilities, learning disabilities, intellectual disabilities, and physical disabilities. Approximately 45% of the individuals served obtained employment and worked for an average of 26 hours per week on average. Wages ranged from $5.15 to over $8.15 per hour.

## CONCLUSION

This chapter has presented two models, (supported employment) an evidence-based practice backed by decades of empirical research and CE a promising practice yet to be proven. Both offer opportunities for real jobs for real pay for individuals with severe disabilities. Despite the empirical evidence for these models and against segregated services, we have far to go before "real work for real pay" is an option for the majority of individuals with severe disabilities.

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# Chapter 20: Vocational Rehabilitation

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***After reading this chapter, you should be able to:***

1. Have a basic understanding of the state–federal vocational rehabilitation program and related vocational rehabilitation processes and services.
2. Identify best practices and outcomes in vocational rehabilitation in the context of evidence-based practice.
3. Recognize the qualifications of vocational rehabilitation professionals.

According to recent estimates from the U.S. Census Bureau, approximately 56.7 million people have a disability, representing nearly one-fifth (19%) of the civilian noninstitutionalized population (Brault, 2012). Despite over 20 years of the Americans with Disabilities Act, people with disabilities continue to face considerable employment disparities. In fact, national statistics show that only 18% of people with a disability age 16 years and older are employed, compared to 63.7% of people without a disability (U.S. Department of Labor, 2012a, 2012b). Unemployment and underemployment problems facing people with disabilities have been made even more acute due to the recent financial crisis. The recession has had a disproportionate impact on workers with disabilities, with the number of employed workers with disabilities declining at a rate of about two to three times that of workers without disabilities (Fogg, Harrington, & McMahon, 2010; Kaye, 2010). These disparities are alarming especially in light of the well-documented relationship between work and well-being of people with and without disabilities. Compared to people with a job, unemployed individuals tend to experience higher prevalence of depression and anxiety disorders, use alcohol more frequently, and report poorer health and lower levels of life satisfaction (e.g., Dooley, Catalano, & Hough, 1992; Kasl, Rodriguez, & Lasch, 1998; Marrone & Golowka, 1999). Not surprising, about two-thirds of unemployed persons with chronic illness and disability report that they would like to work (National Council on Disability, 2007).

Findings from the 2010 U.S. Census report indicates that about 12.3 million people aged 6 years or older require assistance with one or more *activities of daily living* (ADL, e.g., difficulty getting around inside the home, getting into/out of bed, bathing, and dressing, eating, or toileting) or *instrumental activities of daily living* (IADL, e.g., difficulty going outside the home, managing money, preparing meals, doing housework, taking prescription medication, and using the telephone; Brault, 2012). Many of these individuals with severe disabilities may need assistance to gain or regain independence through employment or some form of meaningful activity. The state–federal vocational rehabilitation (VR) program, which serves approximately one million individuals per year and spends more than $2.5 billion annually, plays a large and instrumental role in helping persons with disabilities achieve their independent living and employment goals (Martin, West-Evans, & Connelly, 2010; U.S. Government Accountability Office [GAO], 2005).

The value of the state–federal VR program has been supported in the rehabilitation literature (e.g., Bolton, Bellini, & Brookings, 2000; Chan, Cheing, Chan, Rosenthal, & Chronister, 2006; Dutta, Gervey, Chan, Chou, & Ditchman, 2008; Gamble & Moore, 2003). In general, the employment rates of people with disabilities after receiving VR services are consistently found to be around 60% (Kaye, 1998; Rosenthal, Chan, Won, Kundu, & Dutta, 2006). However, variance in employment success has been observed by disability type, with persons with sensory/communicative impairments having the best outcomes and people with mental impairments having the poorest. Job placement and on-the-job support services appear to contribute most significantly to employment outcomes, and manufacturing and service jobs tend to be the most common occupational outcomes (Dutta et al., 2008). Undoubtedly, VR can play an important role in enhancing psychosocial and vocational outcomes of people with disabilities. The purpose of this chapter is to provide an overview of the state–federal VR program and the rehabilitation process and services associated the public rehabilitation system, as well as review best practices and outcomes of VR within the context of evidence-based practice.

## THE STATE–FEDERAL VOCATIONAL REHABILITATION PROGRAM

The state–federal VR program is the oldest and most successful public program supporting the employment and independence of individuals with disabilities (Martin et al., 2010). It was initiated in 1920, with the passage of the Smith–Fess Act (Public Law [P.L.] 66–236) and remains the dominant practice setting for VR counselors. This rehabilitation legislation was designed to offer grants-in-aid to states to develop VR services for people with physical disabilities. The state–federal VR program became permanent with the passage of the Social Security Act of 1935. The Vocational Rehabilitation Amendments of 1943 (PL 78-113), referred to as the Barden–LaFollette Act, extended state VR services from serving people with physical disabilities to services for people with intellectual disabilities and mental illness (Chan, Sung, Muller, Brooks, & Strand, 2012).

Prior to 1973, the rehabilitation philosophy of the state–federal VR program would have been best described as an economic-return philosophy (Rubin & Roessler, 2008). The emphasis was on returning as many people with disabilities to work as possible at minimal cost in order to demonstrate the cost effectiveness of the state–federal VR program. Therefore, the priority was to serve people with mild and moderate disabilities. Following the disability rights movement and the passage of the 1973 Rehabilitation Act Amendments emphasizing services to people with *severe* disabilities, the philosophy of rehabilitation has since evolved from an economic-return philosophy to a disability rights philosophy—that is, working and living independently in the community

is considered a civil right of people with disabilities (Rubin & Roessler, 2008). Aligning with this shift, the goals of VR include an emphasis on inclusion, opportunity, independence, empowerment, rehabilitation, and quality life (Chan et al., 2012). The concepts of empowerment, self-determination, and informed choice were further strengthened with the passage of the 1992 Rehabilitation Act Amendments. The 1992 Amendments also stipulated that VR services must be provided by qualified personnel, supporting the standard for master's level professionals to serve as VR counselors.

"Vocational rehabilitation" is defined by the Rehabilitation Act as a comprehensive sequence of services, mutually planned by the consumer and rehabilitation counselor, to maximize employability, independence, integration, and participation of people with disabilities in the workplace and the community. Consumer-choice and empowerment are central to the rehabilitation process in state VR agencies. Rehabilitation counselors have the direct service responsibilities for working with people with disabilities throughout the rehabilitation process and are central to the success of the state–federal VR program. Specifically, rehabilitation counseling has been described as a process where the counselor works collaboratively with the consumer to understand existing problems, barriers, abilities, interests, and potentials in order to facilitate the consumer's effective use of personal and environmental resources for career, personal, social, and community adjustment following disability (Parker & Szymanski, 1998). In carrying out this multifaceted process, rehabilitation counselors must be prepared to assist individuals in adapting to the environment, support environments (e.g., employers) in accommodating the needs of the individual, and work toward the full participation of individuals in all aspects of society, with a particular focus on independent living and work (Jenkins, Patterson, & Szymanski, 1998).

### *Population Served*

The state–federal VR system serves individuals with a wide range of disabilities. The population served by VR has shifted significantly since the program's conception, moving away from a consumer base comprised primarily of physical restoration needs to one with an increasing percentage of consumers with mental illness, intellectual disability, and brain injury (Research Triangle Institute, 2002). The VR system is not an entitlement program, but serves eligible applicants in a context of service and budget constraints. In order to be eligible for services, an applicant for VR services must meet the criteria presented in §102(a) (1) of the Rehabilitation Act of 1973.

1. The first criteria of eligibility is that the person be an "individual with a disability" as defined in §7(20) (A) of the Rehabilitation Act of 1973; meaning a person who both:
   a. Has a physical or mental impairment which for such individual constitutes or results in a substantial impediment to employment; and
   b. Can benefit in terms of an employment outcome from VR services.
2. The second criterion is that the person requires VR services to prepare for, secure, retain, or regain employment.

In addition, because of limited financial resources, state VR agencies are required to develop "order of selection" plans to prioritize services for people with significant disabilities (i.e., people with several significant functional limitations requiring multiple services over an extended period of time receive the highest priority for services, while people with less severe disabilities may be placed on a waiting list). Currently, the federal government provides 78.7% of the budget for state VR agencies, which translates

roughly into about two billion dollars in federal grants, matched by $645 million in state and local funds. Although VR counselors tailor services based on individual needs, because of the federal reporting requirements, state agencies all follow a fairly standard rehabilitation process:

- Eligibility determination
- Rehabilitation plan development
- Service provision
- Job placement

## THE VOCATIONAL REHABILITATION PROCESS

To facilitate the coordination of and movement through the rehabilitation process, the Rehabilitation Services Administration (RSA) established a coding system that guides the provision of VR services within each of the standardized processes (Saunders, 2005). However, state VR agencies are allowed to develop their own simplified coding system (Brabham, Mandeville, & Koch, 1998). Nonetheless, the original status code system depicts the flow of the VR process and can be used to help conceptualize the case management and caseload management activities (Brabham et al., 1998). Table 20.1 provides a description of the various types of status codes used throughout the rehabilitation process.

### *Eligibility Determination*

From the moment the applicants sign the service application, they are placed in status 02 (Applicant) and enter the eligibility determination phase. During this phase, the focus of VR services is on documenting diagnoses and functional impairments. Individuals eligible for disability benefits under Title II or Title XVI of the Social Security Act (Supplemental Security Income [SSI] or Social Security Disability Insurance [SSDI]) are presumed to meet these requirements and are eligible for VR services if they express a desire to achieve an employment outcome. Completion of the application process for VR services is considered sufficient evidence of the individual's intent to achieve an employment outcome. For other applicants, the eligibility determination process comprises a two-phase assessment: preliminary diagnostic study and thorough diagnostic study.

#### Preliminary Diagnostic Study

The purpose of the preliminary diagnostic study is to determine whether the applicant is qualified to receive VR services based on the eligibility criteria established by the Rehabilitation Act. Establishing the presence of a disability is relatively straightforward. Counselors are encouraged to conduct their assessment based on a review of existing and readily available data, including observations to the maximum extent possible. (The concept of purchasing diagnostic services only when not readily available is called "similar benefits" mandated by the 1992 Rehabilitation Act Amendments.) Information may also be obtained from other programs and providers (e.g., educational institutions, Social Security Administration, physicians, hospitals, and other sources provided by the consumers or their family members). The data used must describe the current *functioning* of the consumer.

**Table 20.1** *Case Status Codes*

| Codes | Status | Description |
|---|---|---|
| 00 | Referral | The vocational rehabilitation counselor obtains a referral and minimal information about a potential client. |
| 02 | Applicant | Indicates that an individual has applied for Vocational Rehabilitation Services by signing the service application. |
| 04 | Eligible Waiting List | Individual is on the order of selection (OOS) waiting list. |
| 06 | Extended Evaluation | The vocational rehabilitation counselor has certified how the disabilities, and any other factors, result in a substantial impediment to employment, and there is a need to provide certain services to help determine if the individual can benefit from Vocational Rehabilitation Services in terms of an employment outcome. |
| 08 | Closed Before Eligibility | The individual may be determined ineligible or withdraw from eligibility. Agency consideration for other reasons. |
| 10 | Eligibility (Acceptance) | The vocational rehabilitation counselor has certified how the disabilities, and other factors, result in a substantial impediment to employment, and that the individual can benefit from rehabilitation services in terms of an employment outcome. The IPE is being developed but has not been completed. |
| 12 | Individual Plan for Employment (IPE) | An IPE is complete, having been jointly developed by the vocational rehabilitation counselor and the individual to address those vocational and related problems identified as substantial impediments to employment, and no services have been provided. If the two signatures bear different dates, the later governs. *No services can be provided in this status.* |
| 14 | Counseling and Guidance | IPE has started and the only major service is counseling and guidance and job placement. |
| 16 | Restoration | The IPE has started and the primary service is physical or mental restoration. |
| 18 | Training | The IPE has started and the primary service is training. |
| 20 | Ready to Work | Preparation for employment is complete and the individual is ready to seek or begin work. |
| 22 | In Employment | The individual's employment has started. |
| 24 | Services Interrupted | All services are interrupted from statuses 14 to 22. |
| 26 | Rehabilitation | Successful case closure. |
| 28 | Closed After Rehabilitated | Closed not rehabilitated after the IPE has started (at least one IPE services was provided). |
| 30 | Closed Before Rehabilitated | Closed not rehabilitated after eligibility (status 10) and before IPE services had begun (status 12). |
| 32 | Postemployment | A postemployment IPE is developed to maintain or regain employment after a rehabilitated closure. |
| 38 | Closed From Waiting List | Closed directly from the order of selection waiting list. |

If existing data do not adequately describe the current functioning of the individual, additional assessment can be purchased. For example, a neurological examination may be used to confirm the diagnosis of multiple sclerosis or a psychological examination may establish the presence of an intellectual disability.

However, the determination of whether the individual's disability constitutes a substantial barrier to employment is more complex. The counselor must think beyond the mere presence or absence of significant changes in body functions and structures, and must take into consideration the effect of the interaction between the impairment(s) and "related factors" (e.g., age, gender, education, race/ethnicity, poverty, prior vocational training, prior work experience, attitudes, and motivation) on the employment potential of the applicant with a disability. For example, two consumers might both have experienced leg amputation due to motor vehicle accidents, resulting in impediments to their employment status. However, the impact of this impairment on employment is likely to be considerably greater for the consumer whose previous work relied on physical labor (e.g., tractor-trailer driver requiring heavy lifting) compared to a consumer whose previous employment did not (e.g., professor or office worker). Additional assessment services can include gathering supplementary data related to assistive technology devices and services as well as temporary work. After the determination that an applicant's disability does indeed constitute a substantial impediment to employment, the next step is to determine whether or not there is a reasonable expectation that VR services will benefit the individual in terms of employment.

### Thorough Diagnostic Study

While the purpose of the primary diagnostic study is to determine the individual's functional impairments related to preparing for, attaining, or maintaining employment; the purpose of the thorough diagnostic study is to use the functional assessment information to determine and describe the nature and scope of services needed to assist individuals with disabilities reach their vocational goals (Andrew, 1981). As part of the thorough diagnostic study, a gap analysis is conducted by comprehensively reviewing the relevant demographic, medical, psychological, vocational, educational, and other information to determine appropriate vocational goals, review barriers to employment, and identify rehabilitation service needs to ameliorate these impediments. An appraisal of the individual's functional capacity; personality; intelligence level; educational achievements; work experience; personal, vocational and social adjustment; employment opportunities; and other pertinent data are helpful for determining the nature and the scope of services needed. In addition, an appraisal of the individual's pattern of work behavior, feasibility to acquire occupational skill, and his or her capacity for successful job performance—including the utilization of work (simulated or real)—is useful to assess the individual's capability to perform adequately in a work environment. Life skills such as home maintenance (e.g., cooking, cleaning, shopping, and childcare), finances, housing, family, and ADL are also assessed to determine rehabilitation services that could be provided to ameliorate the effect of the disability to improve independent living and employment outcomes.

The purpose of these diagnostic examinations is to identify (a) functional limitations related to disability; (b) psychosocial, educational, and economic factors that might interact with disabilities to impede ability to work and live independently; and (c) the strengths of the consumer in order to assist the consumer with developing appropriate vocational goals. In turn, this information is used to identify the VR services needed to achieve the consumer's immediate objectives and long-term rehabilitation

goals. If more specialized services are needed to help determine whether the individual can benefit from VR services in terms of an employment outcome, the individual can be placed in status 06 (Extended Evaluation).

#### Trial Work Experiences and Extended Evaluation Plans

It is generally presumed that individuals with disabilities can benefit from VR services, unless the rehabilitation counselor can demonstrate, based on clear and convincing evidence, that the severity of an individual's disability prevents obtainment of an employment outcome. In these cases, trial work experiences or extended evaluation may be required when the rehabilitation counselor has determined the applicant's disability has resulted in a substantial impediment to employment, but is unable to make a determination that VR services might benefit the applicant in terms of employability. Trial work experiences can be used to explore the consumer's abilities, capabilities, and capacity to perform in realistic work situations to determine whether or not there is clear and convincing evidence to support the ineligibility decision. Trial work experiences can include supported employment, on-the-job training, situational assessments, and other experiences using realistic work. If an individual with a severe disability cannot take advantage of trial work experiences (or if options for trial work experiences have been exhausted before an eligibility determination can be made), the applicant must be provided the opportunity for an extended evaluation. For all practical purposes, any VR service that is considered necessary to aid in the determination of rehabilitation potential may be provided during the period of extended evaluation. Services must be provided in the most integrated setting possible, consistent with the informed choice and rehabilitation needs of the individual.

### *Individualized Plan of Employment Development*

Once applicants are determined to meet the eligibility criteria for state VR services, they enter the individualized plan of employment (IPE) development phase (Saunders, 2005). The development of the IPE involves the counselor helping the consumer develop vocational goals and operationalize what services will be delivered, by when, by whom, and for how long. The specifics regarding how customized rehabilitation services will be provided, what outcomes should be expected, and in what time frame are determined during this planning phase of the rehabilitation process (Saunders, 2005). Career exploration and counseling are important activities during the planning phase as assessment data are used by rehabilitation counselors to help consumers crystalize career goals consistent with their interests, needs, and abilities.

### *Service Provision*

During the service provision stage, the majority of the services provided to people with disabilities includes restoration of physical function (e.g., surgery, prosthesis, or assistive technology); restoration of mental function (e.g., psychotherapy); academic, business, or vocational training; personal or vocational adjustment training; employment counseling; assistive technology/job accommodation; job placement and job referral; and workplace support (Spitznagel, 2002). Some of these services can be provided directly by the rehabilitation counselor (e.g., counseling and guidance) and other services may be provided by other professionals or agencies. Therefore, rehabilitation counselors are engaged in

delivering direct services to consumers, contracting for services, authorizing funds for services, and coordinating services (Saunders, 2005). Because VR services are tailored to meet the unique needs and situation of the consumers served, the time and extent to which counselors engage in these various aspects of service delivery vary by case.

The VR services that can be provided during this phase of the rehabilitation process include: assessment, diagnosis and treatment of impairments, vocational rehabilitation counseling and guidance, college or university training, occupational/vocational training, occupational/vocational training, on-the-job training, basic academic remedial or literacy training, miscellaneous training, job-readiness training, disability-related, augmentative skills training, miscellaneous training, job search assistance, job placement assistance, on-the-job supports, transportation services, maintenance services, rehabilitation technology, reader services, interpreter services, personal attendant services, technical assistance services, information and referral services, and other services. A description of these services is presented in Table 20.2.

Counselors appear to customize services based on the needs of individuals, and service pattern differences and effectiveness have been documented for people with different types of disabilities. A study by Dutta and colleagues (2008) analyzed the Rehabilitation Services Administration case services report (RSA-911) data for fiscal year 2005 using logistic regression analysis and found job placement, on-the-job support, maintenance, and other services (e.g., medical care for acute conditions) were significant predictors of employment success for consumers served. In addition, they found that some services were better predictors for certain disability groups. For instance, diagnostic and treatment (D&T) services and rehabilitation technology services were found to uniquely contribute to employment outcomes for consumers with sensory impairments as well as for consumers with physical impairments, but not for consumers with mental impairments as a group. Counseling was associated with better employment outcomes for consumers with physical and mental impairments. Vocational training and miscellaneous training (e.g., GED training) were specifically associated with successful employment outcomes of consumers with mental impairments but not for the other two groups.

### *Job Placement*

Helping the consumer obtain and maintain employment in an integrated setting that is consistent with the individual's abilities, capacities, career interests, and informed choice is the goal of the VR services program. While job placement is an integral part of the VR process and service provision, job placement services (job search assistance, job placement assistance, on-the-job supports, and transportation services) are specifically delineated in a consumer's IPE to actively support and teach the individual the skills necessary to find and retain employment. Essentially, planning for specific placement services begins when the consumer has made a commitment to pursue a specific vocational goal. Placement preparation is a function of efficient planning for and provision of services throughout the rehabilitation process. It is critical that placement concerns and issues be addressed early in the rehabilitation process and reflected in the development of the IPE.

During the service provision phase, rehabilitation efforts focus on helping people with disabilities develop both specific and general employability skills. Specific employability skills (e.g., intelligence, aptitudes, achievement, temperament, and physical capacity) are job specific and vary from one occupational class to another. Specific behaviors and skills required for a particular occupation are important in predicting job performance behavior. Conversely, general employability skills (also known as general

**Table 20.2** *Description of Services Provided by State VR Agencies*

| Type of Service | Description |
|---|---|
| Assessment | Services provided and activities performed to determine an individual's eligibility for VR services, to assign an individual to a priority category of a state VR agency that operates under an order of selection, and/or to determine the nature and scope of VR services to be included in the IPE; included in this category are trial work experiences and extended evaluation. |
| Diagnosis and Treatment of Impairments | Surgery, prosthetics and orthotics, nursing services, dentistry, occupational therapy, physical therapy, speech therapy, and drugs and supplies; this category includes diagnosis and treatment of mental and emotional disorders. |
| Vocational Rehabilitation Counseling and Guidance | Discrete therapeutic counseling and guidance services necessary for an individual to achieve an employment outcome, including personal adjustment counseling; counseling that addresses medical, family, or social issues; vocational counseling; and any other form of counseling and guidance necessary for an individual with a disability to achieve an employment outcome; this service is distinct from the general counseling and guidance relationship that exists between the counselor and the individual during the entire rehabilitation process. |
| College or University Training | Full-time or part-time academic training above the high school level that leads to a degree (associate, baccalaureate, graduate, or professional), a certificate, or other recognized educational credential; such training may be provided by a four-year college or university, community college, junior college, or technical college. |
| Occupational/Vocational Training | Occupational, vocational, or job skill training provided by a community college and/or a business, vocational/trade, or technical school to prepare students for gainful employment in a recognized occupation; this training does not lead to an academic degree or certification. |
| On-the-Job Training | Training in specific job skills by a prospective employer; generally the individual is paid during this training and will remain in the same or a similar job upon successful completion; this category also includes apprenticeship training programs conducted or sponsored by an employer, a group of employers, or a joint apprenticeship committee representing both employers and a union. |
| Basic Academic Remedial or Literacy Training | Literacy training or training provided to remediate basic academic skills needed to function on the job in the competitive labor market. |
| Job Readiness Training | Training to prepare an individual for the world of work (e.g., appropriate work behaviors, methods for getting to work on time, appropriate dress and grooming, methods for increasing productivity). |
| Disability-Related, Augmentative Skills Training | Service includes, but is not limited to, orientation and mobility, rehabilitation teaching, training in the use of low-vision aids, Braille, speech reading, sign language, and cognitive training/retraining. |
| Miscellaneous Training | Any training not recorded in one of the other categories listed, including GED or high school training leading to a diploma. |
| Job Search Assistance | Job search activities that support and assist a consumer in searching for an appropriate job; may include help in preparing resumes, identifying appropriate job opportunities, and developing interview skills, and may include making contacts with companies on behalf of the consumer. |

(*continued*)

Table 20.2 *Description of Services Provided by State VR Agencies (continued)*

| Type of Service | Description |
|---|---|
| Job Placement Assistance | A referral to a specific job resulting in an interview, whether or not the individual obtained the job. |
| On-the-Job Supports | Support services provided to an individual who has been placed in employment in order to stabilize the placement and enhance job retention; such services include job coaching, follow-up and follow-along, and job retention services. |
| Transportation Services | Travel and related expenses necessary to enable an applicant or eligible individual to participate in a VR service; includes adequate training in the use of public transportation vehicles and systems. |
| Rehabilitation Technology | The systematic application of technologies, engineering methodologies, or scientific principles to meet the needs of, and address the barriers confronted by individuals with disabilities in areas that include education, rehabilitation, employment, transportation, independent living, and recreation; includes rehabilitation engineering services, assistive technology devices, and assistive technology services. |
| Reader Services | Services for individuals who cannot read print because of blindness or other disability; includes reading aloud and transcribing printed information into Braille or sound recordings if requested by the individual; generally are offered to individuals who are blind or deaf–blind but may also be offered to individuals unable to read because of serious neurological disorders, specific learning disabilities, or other physical or mental impairments. |
| Interpreter Services | Sign language or oral interpretation services performed by specially trained persons for individuals who are deaf or hard of hearing, and tactile interpretation services for individuals who are deaf-blind; includes real-time captioning services; does not include language interpretation. |
| Personal Attendant Services | Those personal services that an attendant performs for an individual with a disability such as bathing, feeding, dressing, providing mobility and transportation, and so on. |
| Technical Assistance Services | Technical assistance and other consultation services provided to conduct market analyses, to develop business plans, and to provide resources to individuals in the pursuit of self-employment, telecommuting, and small business operation outcomes. |
| Information and Referral Services | Services provided to individuals who need assistance from other agencies (through cooperative agreements) not available through the VR program. |
| Other Services | All other VR services that cannot be recorded elsewhere; included here are occupational licenses, tools and equipment, initial stocks and supplies, and medical care for acute conditions arising during rehabilitation and constituting a barrier to the achievement of an employment outcome. |

*Note:* Information extracted from the RSA-911 code book.

work personality) are not job specific and are considered to be required in every job. These behaviors relate to expectations about grooming and hygiene, attendance, punctuality, safety consciousness, relationships with coworkers and supervisors, frustration tolerance, work stamina, and production rate. Behavior and skills related to general employability are important for predicting job maintenance behavior.

In the job placement stage, rehabilitation efforts emphasize "placeability." While placeability has little to do with the person's ability to perform a job, it is an important factor to evaluate in rehabilitation because it deals with a person's ability to obtain a job. Job-seeking behaviors are related to the consumer's resourcefulness, work motivation, resume writing skills, and interview behavior. Job placement involves preparing and coaching VR consumers around obtaining employment as well as working with employers to facilitate the hiring of individuals with disabilities. Individual and group approaches can be used to teach job-seeking skills, conduct an active job search, and provide technical assistance with completing applications, preparing resumes and learning job interview skills.

Employer contacts, job development, functional job analyses, job accommodations, workplace supports and other methods or services that assist individuals and employers in achieving successful employment outcomes are included as placement services. Examples of specific job placement activities include: (a) assessment of employability and placeability factors; (b) assisting VR consumers in developing and implementing a job search plan; (c) networking and consultations with employers; (d) using community resources; (e) coordinating assistive technology/job accommodation services; (f) use of on-the-job training, job coaching, or work trial placements; and (g) planning postemployment services.

Traditionally, these job placement services have focused on providing services to the individual. However, employment demand is changing rapidly due to fundamental structural economic changes and the recent global financial crisis (Chan, Strauser, Gervey, & Lee, 2010). The traditional supply-side approach of providing medical, psychological, educational, and vocational services to improve functioning, stamina, and job skills alone without taking into account organizational behaviors, employer needs, and the changing labor economy is no longer adequate for achieving meaningful employment outcomes for people with disabilities. Recently, demand-side employment models emphasizing variables related to employer demand (and the interaction of employer demand and the environment) as predictors of employment outcomes for people with disabilities have gained attention (Chan et al., 2010). Many state agencies are beginning to implement a dual customer approach to employment services, which involves partnering with employers to help develop alternative placements (e.g., work trial placements, internships, and temporary employment) that can lead to successful employment for people with disabilities.

### *Case Closure and Postemployment Services*

A case is closed when the consumer has been "rehabilitated." Successful rehabilitation closure occurs when the VR services provided under the IPE have led to a competitive employment outcome in the most integrated setting possible, consistent with the consumer's strengths, interests, abilities and choice. After the consumer has maintained this job for at least 90 days, and the VR counselor has determined the employment outcome to be satisfactory, the case is closed. Limited follow-along services may be provided after successful case closure if required to enable the individual to maintain, regain, or advance in employment.

The entire length of the VR process from application to closure ranges in time based on the individual's needs and goals. Sometimes the entire VR service process can be completed in four to six months when just a few services are required to achieve the consumer's vocational goal. In other instances the process make take four to five years or more to complete (e.g., when the consumer's vocational goal necessitates a

postsecondary degree). Throughout the application and service process, each state has a Client Assistance Program (CAP) that provides advocacy and information to consumers. Once a case is closed, the consumer is still able to return and apply for VR services in the future should employment needs arise.

## EVIDENCE-BASED VOCATIONAL REHABILITATION PRACTICES

It is difficult to design a true experimental study to investigate the overall effect of interventions through the state–federal VR system because random assignment of consumers to treatment and control groups is not possible, as consumers who are eligible for services must be served immediately (Bolton, 2004). However, several studies using Rehabilitation Services Administration (RSA-911) data have reported successful rehabilitation rates of about 60% (Dutta et al., 2008; Kaye, 1998). A longitudinal study with a random sample of 8,500 consumers examined the effectiveness of VR services using RSA data (Research Triangle Institute, 2002). The majority of participants in this longitudinal study indicated that VR services had helped them become employed (61%) and that they had obtained the job they wanted as a result of VR services (63%). In addition to the overall effectiveness of the VR system, there is sufficient scientific evidence to support particular services provided by state VR agencies.

Counseling is a central function of the rehabilitation counselor that has received strong support for its efficacy as an intervention. Wampold (2001) reviewed several major meta-analyses conducted between 1993 and 1996 and concluded that a reasonable and defensible point estimate for the efficacy of counseling/psychotherapy is $d = 0.80$, a large effect size in the behavioral and social sciences. Wampold's (2001) analysis also supported that the vast majority (70%) of this effectiveness is accounted for by common factors such as working alliance, empathic listening, and goal setting that underlie all psychotherapeutic approaches that account for this effectiveness, rather than techniques associated with specific theoretical orientations (7%); 22% of the variance in psychotherapeutic effects were partially attributed to individual client difference. In addition, Horvath, Flückiger, and Symonds (2012) found a relatively robust relationship between working alliance (relationship between the counselor and client) and positive counseling outcomes ($r = .28$). Lustig, Strauser, Rice, and Rucker (2002) also reported that employed VR consumers showed stronger working alliances with their counselors than unemployed consumers ($d = 0.73$; large effect).

Recently, several state VR agencies have provided motivational interviewing training for their counselors to help them improve working relationships with their consumers (Larson, 2008; Manthey, Jackson, & Evans-Brown, 2011). Motivational interviewing is an empirically supported, client-centered, semidirective counseling approach designed to promote client motivation and reduce motivational conflicts and barriers to change (Chan et al., 2012). Wagner and McMahon (2004) identified an array of motivational interviewing applications that can be used to address motivational issues in rehabilitation counseling practice such as managing medical issues and adjusting to physical disability, adjusting to cognitive impairment, improving psychosocial functioning, and returning to work. A recent meta-analysis of 25 years of motivational interviewing empirical studies with substance use (tobacco, alcohol, drugs, marijuana), health-related behaviors (diet, exercise, safe sex), engagement in treatment, and gambling variables as targeted outcomes found a small to medium overall effect size ($g = 0.28$; Lundahl, Kunz, Brownell, Tollefson, & Burke, 2010). Although motivational interviewing did not perform significantly better than other substance abuse treatments such as cognitive behavior therapy and 12-step programs, motivational interviewing interventions on average required

significantly less time (over 100 fewer minutes) to produce equal effects. The study findings support motivational interviewing as effective for increasing clients' engagement in treatment and their intention to change and that it works relatively well for individuals with all range of distress levels. The effect of motivational interviewing was also found to be durable at the 2-year mark and beyond (Lundahl et al., 2010).

Promoting self-efficacy is another important aspect of VR intervention. Although skills trainings are frequently used to promote the self-efficacy of individuals with severe and persistent mental illness and alcohol and other drug abuse problems, skills training in the areas of social skills, coping skills, general life skills, and specific job skills is also applicable to individuals with other disabilities. Bolton and Akridge (1995) conducted a meta-analysis of skills training interventions for people with disabilities in VR and found that outcome measures resulted in an estimated true effect size of 0.93, suggesting substantial benefit to the typical participant of state VR services.

Supported employment is frequently provided to VR clients with intellectual and developmental disabilities and psychiatric disabilities. Bond (2004) examined data from four studies of the conversion from day treatment program to supported employment and nine randomized controlled trials comparing supported employment to a variety of alternative approaches. The four conversion studies represented six conversion sites with 317 consumers in supported employment and three comparison sites with 184 consumers in day treatment programs. Bond reported an average threefold increase in employment rate (from 12% to 38%) for the conversion group and virtually no change for the day treatment group (from 13% to 15%) between the pre–post time periods of the studies. Campbell, Bond, and Drake (2011) used meta-analysis to examine four randomized controlled trials comparing the Individual Placement and Support (IPS) model of supported employment to traditional vocational interventions and found large effect sizes favoring IPS across all outcomes: 0.96 for job acquisition, 0.79 for total weeks worked, and 0.74 for job tenure.

### *Criticisms of the VR System*

Although outcomes associated with VR services are generally positive, some criticisms of the VR system suggest areas for further investigation or refinement. For instance, concerns have been raised that the VR program allots a sizeable proportion of time and resources to the eligibility determination phase and to administrative functions that would be better spent toward the provision of direct services (Noble, Honberg, Hall, & Flynn, 1997). The 90-day period to satisfy a successful closure has also been criticized by some as too short a time period to evaluate career development outcomes and successful job tenure (e.g., Rumrill & Roessler, 1999). Others have recommended the use of additional outcome measures, such as those related to well-being and quality of life, in addition to the use of objective measures (e.g., employment) to more fully understand what constitutes successful rehabilitation (e.g., Catalano et al., 2010; Rubin, Chan, Bishop, & Miller, 2003). Recently, VR services have been challenged for focusing predominantly on personal factors of consumers (e.g., personal characteristics, skills, service needs) without taking into consideration demand side factors (e.g., employer needs, organizational behaviors, changing labor markets), which are valuable for informing employer-focused strategies to increase return to work rates (Chan et al., 2010).

In addition to process concerns, disparities in successful closures across subpopulations of consumers served through VR have also been identified. A study by Capella (2002) suggested that women tend to be closed with lower-quality placements (e.g.,

homemaker noncompetitive employment) relative to their male counterparts. Across several studies, acceptance and employment outcomes appear to disproportionately favor European Americans over other ethnic and racial groups (e.g., Capella, 2002; Cardoso, Romero, Chan, Dutta, & Rahimi, 2007; Herbert & Martinez, 1992). Comparing across disability populations, consumers with psychiatric disabilities face among the poorest employment rates even after VR services (Dutta et al., 2008; Salzer, Baron, Bursilovskiy, Lawer, & Mandell, 2011). A report by the National Alliance on Mental Illness underscored several areas of concern around the state–federal VR system's ability to work effectively with individuals with severe mental illness (Noble et al., 1997). Specifically, the report addressed several barriers to serving people with severe mental illness, including the time-limited nature of the VR program's services, which may not adequately address the needs of people who experience chronic and episodic illnesses, as well as challenges to effective collaboration with mental health agencies and other involved systems and providers. Although consumers with psychiatric disabilities are at higher risk of experiencing unsuccessful outcomes relative to other disability groups, VR services have been shown to be effective with this population and improve their odds of returning to work (Chan et al., 2011). Further, these documented disparities underscore the need for VR counselors to receive high-quality training so they are able to provide culturally competent services and effectively work with consumers facing a variety of complex needs, including significant mental health challenges.

## QUALIFICATIONS OF VOCATIONAL REHABILITATION PROFESSIONALS

Rehabilitation counselors are responsible for the delivery of vocational services in state VR agencies. Since 1967, rehabilitation counselor roles and functions studies have been conducted on a regular basis, with several receiving support from the Commission on Rehabilitation Counselor Certification (CRCC) and the Council on Rehabilitation Education (CORE). The most recent study was conducted by Leahy, Chan, Sung, and Kim (2013), which involved a survey of a large random sample of certified rehabilitation counselors. This study examined the perceived importance of major job functions and knowledge domains that underlie contemporary rehabilitation counseling practice and credentialing. Results revealed three major job functions as central to the professional practice of rehabilitation counseling: (1) job placement, vocational assessment, and career counseling, (2) counseling, psychosocial interventions, and case management, and (3) demand-side employment, workers' compensation, and forensic services.

Research on VR counselor roles and functions has been used to guide the development of graduate curriculum in rehabilitation counseling. Currently, there are over 100 graduate programs in rehabilitation counseling accredited by the National Council on Rehabilitation Education. In addition, roles and functions studies have been used to develop national examinations for the certification of rehabilitation counselors with the certified rehabilitation counselor (CRC) credential being considered the "gold standard" for VR professionals. The CRC credentialing process was the first, and considered to be the most established certification mechanism in the counseling and rehabilitation professions within the United States (Leahy & Holt, 1993). Currently, over 15,000 CRCs are practicing in the United States and in several other countries (Leahy et al., 2013).

Research suggests that educational level and training of the counselor appear to play a role in rehabilitation outcomes. There is empirical evidence to support that counselors with a master's degree in rehabilitation counseling are associated with better rehabilitation outcomes (Cook & Bolton, 1992; Szymanski, 1991; Szymanski & Danek,

1992; Szymanski & Parker, 1989). Szymanski and colleagues investigated the relationship of rehabilitation counselor education and experience on consumer outcomes in Arkansas, Maryland, New York, and Wisconsin. They found that counselors with master's degrees in rehabilitation counseling (or closely related fields) yielded better outcomes for consumers with severe disabilities as compared to counselors without such educational preparation. Frain, Ferrin, Rosenthal, and Wampold (2006) conducted a meta-analysis of rehabilitation outcome studies between 1980 and 2004. They found a small educational effect of $d = 0.20$, indicating that the average VR consumer who is served by a counselor with a master's degree in rehabilitation counseling is better off than 58% of those in the comparison group who were treated by a counselor without a master's degree in rehabilitation counseling.

## SUMMARY

The state–federal VR system addresses employment disparities faced by people with disabilities by offering services to target individuals' employment needs and promote consumer choice and empowerment. There is empirical evidence demonstrating the effectiveness of state VR services in returning people with disabilities to competitive employment. Central to the effective delivery of VR services is the rehabilitation counselor, with moderate support found for counselors with graduate training in rehabilitation counseling being more effective than counselors without degrees in rehabilitation counseling. There is strong empirical evidence to support the efficacy of specific services of the VR process including counseling, skills training, job placement, and supported employment.

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# *Chapter 21: Private Practice in Vocational Rehabilitation*

*SCOTT BEVERIDGE AND RANDALL S. McDANIEL*

***After reading this chapter, you should be able to:***

1. Identify the roles of the rehabilitation counselor in private practice.
2. Explain the areas of employment in vocational rehabilitation private practice.
3. Differentiate the duties of a case manager from those of a vocational expert and those of a life care planner.
4. Discuss ethical considerations for the private practitioner.
5. Explain the litigation process in which private practitioners participate.

Vocational rehabilitation is a program and service that has been identified with the state–federal vocational rehabilitation program for so many years that in the minds of many, the provided rehabilitation counseling service and the state–federal vocational rehabilitation program are one and the same. However, as the field of rehabilitation counseling has matured, practitioners have taken their skills to other settings. This has resulted in a diversification of employment possibilities and an increased respect for the field of rehabilitation counseling as it moves toward becoming an independent profession practiced in diverse settings. One area of increasing employment for rehabilitation counselors has been in private practice which has grown from its inception in the 1960s and 1970s to encompass employment in every state, distinguishing certification and licensure, specialized professional associations, and an increasing body of knowledge of practice in private for-profit settings. Rehabilitation counselors can now be found in workers' compensation, social security disability, long-term disability insurance, personal injury litigation, life care planning, divorce litigation, and other venues. Most often the rehabilitation practitioners function as case managers, vocational experts (VEs), and/or life care planners. This chapter focuses on these areas of practice and should serve as an introduction to each.

## AREAS OF PRIVATE VOCATIONAL REHABILITATION PRACTICE

As Table 21.1 indicates, there are four main areas of private practice and three primary roles in vocational rehabilitation that will be discussed in this and the following sections.

### *Workers' Compensation*

Workers' compensation is the oldest social insurance program in the United States. The early workers' compensation laws in the United States were influenced by laws in both Germany (1884) and Austria (1887). This program provides for medical care, disability payments, and vocational rehabilitation services for workers who sustain an injury or occupational disease out of the course of employment. Insurance premiums are paid by the employer to an insurance company to manage claims or if the employer is large enough they can self-insure utilizing an employer's self-insurance account. Every state has their own system of workers' compensation, specific regulations, and rules for providers of rehabilitation services. In addition, there are a number of workers' compensation systems unique to special groups (i.e., Veterans Administration, longshoreman, railroad employees, coal miners, and federal employees). In workers' compensation, the law is developed by each state legislature which defines the requirements and benefits; however, the program is paid for most often by private insurance carriers who underwrite the workers' compensation benefits in accordance with the state law. A state workers' compensation board oversees many of these state programs.

Workers' compensation laws were developed in response to an evolution from an agricultural to industrial work force in the early 1900s. The first statute providing protection to injured workers was from the state of Wisconsin in 1911. In 1914, the Workers' Compensation Law for New York was passed and it served as a model for other states to follow. Over time, various legislation and court decisions have added occupational diseases and psychological disorders to the categories of covered impairments over the last 100 years (Workers Compensation Research Institute, 2012).

Workers' compensation systems have two primary goals. First, the program provides a system of medical care and wage replacement for employees who sustain a valid injury on the job. Second, it protects employers by developing a "no fault" system that eliminates other legal remedies or civil actions for employees against employers. Workers' compensation systems were designed to minimize litigation and allow the injured worker to obtain medical care quickly without a lengthy legal battle. The principal underlying workers' compensation systems is based on the notion that accidents and on-the-job injuries are going to occur in an industrial economy. It benefits society to have a system in place to take care of the workers who are unfortunate enough to sustain an on-the-job injury and attempts to return them to gainful employment.

Vocational rehabilitation services were added to many workers' compensation systems in the 1960s, usually via collaboration with federal/state Divisions of Vocational Rehabilitation. In the 1970s, many states passed legislation to provide injured workers

Table 21.1 *Areas of Employment and Roles in Private Practice*

| **Area of Employment** | Workers' Compensation | Personal Injury | Divorce | Social Security and Other Disability Retirement |
|---|---|---|---|---|
| **Roles** | Vocational Expert | Vocational Expert, Case Management, Life Care Planning | Vocational Expert | Vocational Expert |

additional vocational rehabilitation services. These new VR services focused on returning the injured worker to productive employment as soon as possible. This led to the development of private-for-profit rehabilitation agencies and a new occupation, the VE (Boden, 2005). VEs evaluate the disabled worker and testify about earning potential, wage loss, retraining options, occupations the client could perform, and diminution of earnings capacity.

Workers' compensation laws are continuously evolving each year and vary greatly from state to state. Even in those states that have repealed mandatory vocational rehabilitation services, there still is a role for VEs. The role could be vocational assessment, job placement, job modification, labor market surveys, or in a forensic capacity in the courtroom.

#### Personal Injury

A personal injury can be physical, cognitive, emotional, or a combination of these injuries. Some examples of frequently litigated personal injury cases are:

1. Injuries caused by motor vehicle accidents (physical injury)
2. Injuries caused by faulty medical equipment (medical malpractice)
3. Injuries caused by malfunctioning equipment or machinery (product liability)

The range of medical and psychological injuries that a VE can evaluate for personal injury cases is extremely diverse. The medical and psychological injuries can be mild, moderate, or catastrophic depending on the facts of the case. Damages for the injury can be determined utilizing several different peer-reviewed methodologies. The important criterion is to use a method to determine damages that is generally accepted by the field and can withstand court challenges and cross-examination (i.e., Daubert challenge and Frye test). One common methodology is the Vocational Diagnosis and Assessment of Residual Employability (VDARE) process in conjunction with a loss of earnings calculation. It is ultimately the trier of fact's responsibility (i.e., judge or jury) to determine the degree of disability and financial compensation.

A common type of personal injury case results from automobile accidents. For example, a client sustaining a soft tissue injury (i.e., whiplash) usually has limited medical evidence to support their claim of disability. Insurance companies usually take a hard line on these types of cases that have limited medical evidence (MRI, x-ray, and CAT scan) to support the claim of disability. The goal of the insurance carrier is to make these types of claims hard to settle to discourage attorneys from taking them. However, an automobile accident that results in a significant or catastrophic injury (i.e., amputation, traumatic brain injury, paraplegia, and death) will be handled differently and insurance carriers set aside reserves to pay for the medical treatment, rehabilitation, and litigation expenses based on similar claims. In a catastrophic case, a VE would develop a life care plan outlining the care and related expenses that the client would require throughout the life span. Life care plans are discussed in detail later in this chapter.

Another type of personal injury litigation is medical malpractice. Malpractice is defined as "a deviation from standard medical and surgical care…" (Miller, 1988, p. 2). This can be a result of using defective medical equipment or not following standard medical practice or procedures. Not all poor surgical or medical outcomes are medical malpractices. There are many more cases of the so-called "unfortunate medical results" than there are of actual medical malpractice. It is the combination of deviation from standard medical care and an extremely poor medical outcome (perhaps permanent disability) that results in a case of malpractice. In addition, other occupations besides

the medical profession can be sued for malpractice. For example, a rehabilitation counselor working in private practice who ignores medical data (i.e., treating physician's limitations, job analysis, and functional capacity evaluation—a measure of functional abilities—and places a client in an occupation beyond the client's physical capacity who then is injured on the job is at risk for a malpractice claim.

A third type of personal injury litigation is product liability. However, in this type of case, there are usually more than one defendant(s) involved in litigation of a claim. For example, an individual injured on the job by a crane that did not function properly could bring suit against the manufacturer of the crane, the employer, and the company that sold the crane. The approach of the VE would be the same regardless of the type of personal injury litigation. The expert follows the same peer-reviewed methodology to calculate the vocational damages (i.e., loss of earnings) as part of adjudication of the case.

### Case Management

Case management is a care delivery model designed to coordinate and manage patient care across the continuum of health care systems. Nurse case managers and/or rehabilitation counselor case managers are usually involved over an entire episode of illness, disability, or need for rehabilitation services. Numerous definitions of case management often relate specifically to the profession, the organization, or the client group. The American Nurse Credentialing Center, a subsidiary of the American Nurses Association (ANA, 2012), defines nursing case management as:

> Nursing case management is a dynamic and systematic collaborative approach to provide and coordinate health care services to a defined population. The framework … includes … five components: assessment, planning, implementation, evaluation, and interaction. (p. 2)

Nurse case managers actively participate with their clients to identify and facilitate options and services for meeting individuals' health needs, with the goal of decreasing fragmentation and duplication of care, and enhancing quality, cost-effective rehabilitation outcomes.

Contemporary case management began in the 1970s as a way to assure both quality outcomes and cost containment in an increasingly complex system. At that time, a variety of factors had converged to cause inflation in health care. Traditional indemnity insurance plans and federally funded programs had few incentives to control costs. Advances in technology were becoming prohibitively expensive. The aging population and an increase in incidence of chronic illness placed additional burdens on the health care system. Duplication and gaps in services were becoming more frequent. The uncontrolled growth of health care costs led to the emergence of "external" case management, as insurance companies and other third-party payers sought effective means of controlling expenses, especially those associated with catastrophic illnesses and injuries.

In the 1980s, acute care facilities began to feel the impact of decreasing revenues. Hospital restructuring efforts strove to standardize plans of care and reduce costs, while improving quality; thus, "internal" case management was developed (Toran, 1998). Today, case managers can be found worldwide, in acute care, rehabilitation facilities, community-based programs, home care, and insurance companies.

The practice of case management depends a great deal on the type and structure of the organization. Although case managers can arise from many disciplines, most have a background in nursing, social work, or rehabilitation counseling. Nurses are well suited to the role because the functions of case management closely follow the framework of

the nursing process: assessment, planning, implementation, and evaluation while rehabiliation counselors have been traditionally educated in case management and employ both their knowledge of medical issues, case management techniques, counseling, and vocational assessment and placement. Case management as a process broadens these frameworks and incorporates additional components, such as patient identification or case selection; resource identification; advocacy; coordination, monitoring, and evaluation of care; data collection and analysis; and documentation of multiple outcomes, including cost, quality, and client status. Regardless of discipline, the primary function of the case manager is to ensure that the injured consumer receives the most meaningful rehabilitation plan possible and moves as rapidly as possible to recovery.

Owing to its inherently collaborative and multidisciplinary nature, the process of case management involves the client, family, and other members of the health care team. Coordination of care fosters the efficient use of resources. However, even in the era of managed care, cost control, while essential, is not the only goal. Quality of care, continuity, and assurance of appropriate and timely interventions are also crucial. In addition to reducing the cost of health care, case management "has proven its worth in terms of improving (re)habilitation, improving quality of life, increasing client satisfaction and compliance … promoting client self-determination" (Smith, 1995, p. 7).

The practice of case management is evolving and, to a large degree, still depends on the setting. Historically, preparation for the nurse case manager occurred in the health care organization and was specific to the role, responsibilities, and scope of practice in the institution. More recently, preparation for case managers has been embraced in the academic setting. In nursing, baccalaureate education is seen as minimal preparation, and preparation at the graduate level is increasingly emphasized for nurses (Toran, 1998) while mandatory for rehabilitation counselors that want to perform this function. Competencies achieved at the graduate level correspond with the complex role and responsibilities of the case manager. Regardless of academic preparation, to be effective, the case manager must possess clinical expertise, effective communication and problem-solving skills, and broad knowledge of the health care system, including financing, regulations, and resources. The American Nurses Credentialing Center offers an exam-based nursing case manager certification for registered nurses with demonstrated clinical experience in case management while the Academy of Certified Case Managers ensures the systematic education and knowledge level of certified case managers (CCM), while providing a measure of quality regardless of professional affiliation (ACCM, 2012). Case managers also have the role of providing vocational assessment, matching the worker to available work given their residual function, and job placement. These skills are not possesed by the nurse case manager which has allowed the entrance of rehabilitation counseling into the case management process where rehabilitaiton counselors work as part of a multiteam service effort or in some instances, rehabilitation counselors perform all of the case management functions.

### Life Care Planning

Life care planning is a relatively new specialty that has experienced tremendous growth in the past 30 years. This growth is due in part to the utilization of life care plans within the rehabilitation, insurance, and legal professions. More significantly, life care plans have proven to be valuable tools in managing catastrophic injury and illness.

The methodologies of life care planning emerged from a combination of case management practices and catastrophic disability research in the mid-1970s. The first published reference to life care planning can be found in *Damages in Tort Actions*

(1982), a multivolume text written by Paul M. Deutsch, PhD, and Fred Raffa, PhD. The methodology of life care planning provided professionals with a consistent process for analyzing the immediate and lifelong needs of clients necessitated by the onset of a disability (Deutsch, 2012).

A life care plan is a medically based individualized document that provides a detailed assessment of all current and future needs, medical treatment, supplies, and living arrangements in order to achieve optimal health, maximum functioning and the highest quality of life for the client. A life care plan is a holistic document that provides relevant historical data on the client's medical, social, educational, vocational, and family history. The life care plan describes the client's ability to participate in activities of daily living (ADL) and contains a cost summary of required items, future treatment, a vocational assessment, and loss of earnings data. Historically, life care plans were used by insurance companies in catastrophic cases to set aside reserves for future treatment expenses. Currently, life care plans are frequently used to prepare for future litigation, as an outline of future care and to prioritize treatment so that the available funding is utilized most appropriately.

With its foundation in rehabilitation, life care planning attracts board-certified and/or licensed professionals from diverse fields of practice, including rehabilitation counseling, rehabilitation nursing, rehabilitation psychology, psychiatry, case management, and other allied health professions (CNLCPCB, 2012). In addition to achieving certification or license in their primary disciplines, many professionals choose to pursue board certification in life care planning (CLCP) which is currently granted in the United States by the Commission on Health Care Certification or one specific to nurses offered by the American Association of Nurse Life Care Planners (CNLCP). The role and function, duties, and methodology of life care planning are discussed in detail later in the chapter.

#### Divorce

Divorce is often a contentious litigated situation that can end in civil court over disagreements of child custody, property, and support. In these cases, disputes arise as to the earning potential of each partner with asset allocation partially based on both partner's skills in the workplace. Therefore, employment and earning ability directly impacts the resolution of the economic issues at stake in divorce. Increasingly, the courts are turning to VEs to assist the court in determining earning potential and economic contribution to the household from each spouse to reach a fair and equitable settlement.

### *Roles for Rehabilitation Professionals in Private Practice*

Case managers can become involved with clients at different phases of the rehabilitation process.

Some people may have recently acquired an illness or on-the-job injury (i.e., workers' compensation). Others may have a developmental disability that, as a result of change in their circumstances, is creating difficulties for them. Others may be in need of a lifetime care plan. Thus, the case manager engages with a client at whatever stage in the disability process that client is and coordinates appropriate rehabilitation interventions and supports to maximize residual functional capacity. In order to achieve this, the case manager must focus not only upon the impairment of function or physical limitations of the client but also upon the barriers and challenges created by the external environment. The case manager utilizes important resources such as assistive

technology, physical and psychiatric rehabilitation, vocational assessment, vocational training, job analysis, job placement, and job accommodation. These services must be brought together in a coherent rehabilitation plan on behalf of the client to maximize their potential. A case manager must attempt to find solutions to various issues and act as an advocate for the client in overcoming these challenges.

On this basis, the case manager adopts a comprehensive, multidisciplinary, and integrated approach to developing the rehabilitation plan. They provide the client with clear, accurate, and accessible information about their strengths and weaknesses and assist them in problem solving, decision making, and rehabilitation planning. The case manager involves the client as an active participant within the rehabilitation process and provides information about the results of assessments and rehabilitation interventions (Summers, 2009).

Most importantly, the case manager should adopt a holistic approach to defining needs and identifying appropriate solutions. Thus, while it is important that appropriate interventions are provided to respond to the physical/functional needs of the individual and to ensure that clients achieve a maximum restoration of function and experience minimal limitation, it is also the responsibility of the case manager to assess the external context of the individual to identify resources and potential challenges. In particular, the environmental, social, and occupational contexts are evaluated and interventions planned to reduce the extent to which a person's participation in these is restricted. Finally, it is important for the case manager to be cognizant of the financial and economic contexts within which the person finds himself or herself postinjury and to examine the educational and psychological resources and needs that a person brings to the rehabilitation process.

By adopting such a comprehensive approach to developing a case management plan, the case manager is taking a holistic approach to consider all of the client's circumstances, and the rehabilitation plan itself is more likely to result in positive outcome for the client.

### Vocational Expert

Forensic rehabilitation is a growing and relatively new area of practice for rehabilitation counselors and consultants. Forensic rehabilitation involves taking rehabilitation principals and applying them to litigation. A VE is one who is highly trained and knowledgeable in the field of rehabilitation counseling with the intent of assessment of a "client" and providing testimony based upon that evaluation. The National Council on Rehabilitation Education (NCRE) has defined a VE as:

> An individual who has received an academic degree from an accredited education program accepted by the rehabilitation profession as denoting professional status; is certified and/or licensed to practice in accordance with the rehabilitation profession's national certification board or commission and/or the state's licensing board; maintains their certification and/or licensure by completing continuing education units approved by the certification/licensure boards for renewal of certification/licensure; and has completed the amount of time on the job specified by the profession as denoting achievement of journeyman status. (Kolk, 1993, pp. 124–125)

Rehabilitation counselors and consultants engaged in forensic rehabilitation can be involved in many different types of cases (i.e., personal injury and divorce) on various issues from either side of the case. The most frequent role is determining the extent

of disability and the employment potential of the "client." A unique aspect of forensic rehabilitation is the person being evaluated is an "evaluee" and not a "client" in the usual sense of the word. This means that there is no client–counselor relationship between the two parties, no expectation of future rehabilitation services (i.e., counseling, job placement, and job analysis), and limitations on confidentiality. VEs are used to assess the impact of an injury or illness on a person's earning potential. The purpose of utilizing a VE is to provide the jury and/or judge with an objective opinion of how much the injured person's future earning capacity has been affected so that adequate compensation can be awarded where liability for the injury has been established.

The effect of hiring a VE for a case involved in current or future litigation includes the explanation of the case in a forensic rehabilitation capacity, explaining the methodology involved in calculating an estimate of the "evaluee's" loss of earnings, and providing an unbiased opinion of the case. It is important for the VE to become involved as early as possible in the case in order to assess, evaluate, and provide accurate vocational information to maximize their effectiveness. The VE contributes to justice by providing information to the jury or trier of fact that leads to a fair resolution of the case. However, the VE must recognize that an excellent lawyer in combination with a good expert witness can tip the scales of justice in one direction or another (plaintiff or defense).

Some of the qualities that make a good expert witness are conservative dress combined with professional expertise and confidence, which makes the testimony seem more substantial and believable; the ability to use simple language to explain a complex topic to average laypersons; and holding the attention of the jury and/or judge to have an effect on the outcome of the case. The ability to hold one's emotions in check when the other side's attorney cross-examines the expert witness is very important as the other side's attorney will do anything they can to discredit the expert's opinion. VEs are hired specifically to tip the scales of justice in the direction of their opinion. Therefore, it is very important that their opinion be respected and carries weight with the decision makers (i.e., judges and juries) within the courtroom.

The VE has a wide variety of cases and venues that they can be hired to evaluate and ultimately testify. These venues include:

1. Medical malpractice
2. Divorce
3. Workers' compensation
4. Veterans Administration
5. Individuals with Disabilities Education Act
6. Civil suits (personal injury)
7. Wrongful termination
8. Sexual harassment
9. Long-term disability
10. Family and Medical Leave Act (FMLA)

The role that a VE plays is very different from a rehabilitation counselor or case manager. The first primary difference is who the "client" is. The attorney representing one side of the case usually retains or hires the VE. In effect, the VE has been hired to perform one specific task and it acts as an agent of the referral source. Thus, the VE must obey the directives of the referral source (attorney) and act at his or her direction. The role of VE is tightly defined and structured in a manner that can be punitive if the expert deviates from that role without contacting the referral source and obtaining permission (i.e.,

contacting the client/evaluee and physician). The VE's function is that of an evaluator only and not a rehabilitation counselor, advocate, or case manager. Finally, the VE is not an attorney and is not an expert in understanding and evaluating the law. If a VE deviates from his or her prescribed role, he or she may have committed a "tort," damaging the value of the case. As a result, the VE can be sued for the potential value of the case and damages, destroying one's career as an expert witness. This is one reason why VEs need to carry malpractice insurance.

### Life Care Planner

As mentioned earlier in the chapter, life care planning is a relatively new area of practice for rehabilitation professionals. The International Commission on Healthcare Certification (ICHC) developed the Certified Life Care Planner credential. The purpose of the CLCP credential is to measure the CLCP applicant's working knowledge of medical systems, associated disabilities, and treatment/maintenance protocol required for a catastrophically disabled individual to sustain life within an acceptable comfort level (ICHC, 2012). The designation of a "health care professional" must be specific to the care, treatment, and/or rehabilitation of individuals with significant disabilities and does not include such professions as attorney, generic educators, administrators, and so on, but does include such professions as counseling and special education with appropriate qualifications. Individuals who complete life care plans typically have backgrounds in nursing, rehabilitation counseling, psychology, case management, special education, or social work. Life care planners need to possess a graduate degree from an accredited institution in one of the above disciplines (with a focus on rehabilitation) have a minimum of 3 to 5 years of field experience in addition to other qualifications (i.e., 1 year's experience working with CLCP).

The definition of life care planning is as follows:

> A consistent methodology for analyzing all of the needs dictated by the onset of a catastrophic disability through to the end of life expectancy. Consistency means that the methods of analysis remain the same from case to case and does not mean that the same services are provided to like disabilities. (Deutsch & Sawyer, 1995, p. 228)

Life care planners work as part of a rehabilitation team to determine the total cost of an individual's care over a prolonged period of time (usually the life span). Life care planning is one of the newer areas of practice in rehabilitation beginning in the early 1980s. It requires a seasoned professional with considerable clinical experience who understands the rehabilitation process and is comfortable working with other professionals (attorneys, nurses, physicians, psychologists, physical therapists, and social workers). A life care planner has to take charge of determining the cost of assessments, treatments and services, medical devices, supplies, and related care. They have to objectively determine the costs of all required care, treatment, and medications and systematically itemize each cost in a logical easily followed document called a life care plan. Some life care planners provide a range of costs and expenses depending on which providers or treatment plans are utilized to complete the life care plan. In addition, there can be two different life care plans for the same client (plaintiff and defense) that would have very different treatment recommendations, required care, and resulting costs. The topic of life care planning is discussed in detail later in the chapter.

### Case Management Role and Functions

Case management is one of the places in human service systems where the whole client is taken into account. Unlike specific rehabilitation services, case management focuses on many client problems and issues, strengths, weaknesses, interests, goals, costs, and other concerns. Case management is a process of assessing the client holistically addressing the needs and problems identified in that assessment. The primary goal of case management is to improve the client's overall situation (i.e., return to work) and improve the quality of life. This could mean improving the client's living arrangements, psychiatric care or medication for pain. Another major goal of case management is to prevent problems or conditions from growing worse, costing more, and ultimately reducing the employability of the client. Thus, case management serves two primary purposes. First, it is a method for determining an appropriate rehabilitation plan for each client and monitoring that plan to make sure it is effective. Second, it is a process used to ensure that the resources utilized to pay for the client's rehabilitation services are being spent wisely and in the most cost effective manner (ACCM, 2012).

The financial resources that case managers monitor can come from many different sources, including taxpayer resources used to provide substance abuse treatment for clients in a particular city or county, money from insurance companies for rehabilitation services for an injured worker (i.e., workers' compensation) or from the Veterans Administration to care for a disabled veteran. The case manager monitors the expenditure of resources to assure that the funds are used efficiently. Thus, it is the case manager who determines what rehabilitation services are needed and how to prevent problems (medical, psychological) from getting worse. The case manager works in collaboration with the client to determine what services should be authorized with the existing resources. The case manager then monitors the client's rehabilitation progress to keep the case on track (medically and financially).

Case management is more than just monitoring expenditure of rehabilitation resources. It is also the most efficient way to ensure that the client receives a tailor-made rehabilitation plan designed specifically for his or her unique circumstances. To meet this rehabilitation goal, case management duties are usually divided into four categories of service: assessment, planning, implementation, and monitoring.

Assessment is the first case management task. This initial assessment must be comprehensive, holistic, and thorough and covers many areas of a client's rehabilitation and life. There are several ways to complete an assessment, but the first thing a case manager does is to assess the presenting problem. Why is this client seeking rehabilitation services? Does this problem interfere with the ability to work? How long has it gone on for and how did the problem begin (i.e., on-the-job injury and car accident)? Case managers may include an opinion about what future problems may arise and what plan can be implemented to mitigate these future challenges.

A discussion of the problem usually uncovers the client's needs. Case managers examine the entire problem holistically and consider what the client needs to do to resolve the presenting problem. During the assessment one will begin to learn about the clients' strengths (i.e., education, skills, work ethic, and personality) and what they can bring to the table to resolve the problem. A case management assessment should never be just about the client's problem, but should also include the positive aspects of the client that can be used to mitigate or solve the problem(s). A case manager collects data from the client who is also assessing the person's ability to solve problems, follow directions, and understand options and the person's general mood and personality.

Once the case manager collects all of the above data, a formal written report will be completed summarizing the assessment and recommendations for service. The case manager will briefly summarize the presenting problem, the client's ability to deal with the problem, strengths and weaknesses, and the recommendations for rehabilitation services and/or treatment. Thus, in summary, the case manager explores and evaluates the following:

1. The initial problem and the client's background
2. The client's current situation (medically, emotionally, and financially)
3. The client's educational attainment, work history, legal history, claims history, and preexisting conditions
4. The strengths and weaknesses the client brings to the situation
5. Observations about the client and related behavior
6. Overall recommendations for services and/or a rehabilitation plan

Planning for the client's rehabilitation is the next task that a case manager must complete. After the assessment is completed, you will develop an initial rehabilitation plan collaborating with the client to address all of the issues identified during the assessment. The plan will be comprehensive, will be individualized to fit the client's situation, and will have goals that can be monitored to assess progress toward meeting the expected rehabilitation outcomes. A case manager must obviously be aware of the rehabilitation services, agencies, medical providers, and related resources in the client's community that can be utilized to obtain rehabilitation goals.

Every community has social services, support groups, and rehabilitation agencies that serve certain populations. Some areas (urban or suburban) generally have more services and agencies than others (rural). Experienced case managers know the most reputable, established, and efficient places to refer their rehabilitation clients. Over time, a case manager builds up a network of contacts in these agencies and rehabilitation providers. This is important because clients that are referred by a case manager will receive prompt appointments, appropriate services, and customer service when problems arise. For example, a case manager has a complex case and needs to schedule an appointment with a specialist. In the client's area, Johns Hopkins Hospital is one of the best providers, but has a 3-month waiting list for new patients. A case manager who has a relationship with the orthopedic surgery office manager may be able to get the client an appointment in a few weeks.

Once the rehabilitation plan is written, the next step is implementing the plan. The case manager refers the client to the appropriate rehabilitation provider, agency, or counselor for implementation. Referring the client to the correct agency or provider is a case management skill. A case manager will need to know what services best fit the client's situation and their rehabilitation needs. Referring a client for a specific service (i.e., substance abuse treatment, physical therapy, and surgery) will require a written referral. The case manager specifies the reason for referral, the current problem, and the client outcome that is expected as a result of services. The referral will also specify the amount of time estimated to reach the goal or outcome. The expected duration of treatment is very important because it prevents the treatment from becoming endless and unstructured. With a specified rehabilitation goal, estimated cost and an amount of time to obtain that goal it improves the probability that the client will obtain their goal (i.e., return to work and independent living).

Finally, the last case management task is monitoring the progress toward obtaining the rehabilitation goal. After the plan has been completed and implemented, it is the case manager's responsibility to monitor the services provided to the client. The

case manager should receive written reports (i.e., monthly progress reports and surgical reports) about the client's progress and services provided. Some agencies have treatment conferences about the client's progress and the case manager should be invited to participate; however, this may depend on your state laws and regulations. Communicating with the providers of rehabilitation services is done for two primary reasons:

1. A case manager wants to be certain that the authorized treatment or services have been completed and no unauthorized treatment has occurred.
2. To monitor the progress toward the goals that were developed collaboratively with the client and to possibly adjust the goals or plan given the current circumstances.

Case managers should possess the following knowledge and skills to effectively work with their rehabilitation clients:

1. Individual and family therapy techniques—these knowledge domains and skills can be obtained from completing the following rehabilitation counseling courses: human development, theories and techniques of counseling, foundations of rehabilitation counseling, family therapy, and abnormal psychology.
2. Understanding the relationship between psychological, social, medical, and economic factors that a case manager will have to deal with when working with their clients. These skills and knowledge can be obtained by completing the following courses: disability and case management, medical and psychosocial aspects of disability, social and cultural dimensions of counseling, and diagnosis and treatment planning.
3. A case manager must also understand the policies and procedures of the agency or insurance company that he or she is working for.
4. Federal and state laws and regulations (i.e., HIPAA) that affect the agency's delivery of case management services.
5. The availability of community services, resources, medical providers, and related vendors in the client's geographic area. This is very important to obtain the rehabilitation goals and achieve a satisfactory outcome (return to employment) for the client.

### *Employers*

Employment opportunities for case managers exist in a wide variety of organizations. These can range from insurance companies, case management companies, hospitals, nonprofits, community rehabilitation providers, corporations, rehabilitation agencies, Veterans Administration, and other related rehabilitation agencies and/or medical providers. There are also opportunities for self-employment as a case manager if the individual has the appropriate experience, education, and entrepreneurial skills (i.e., marketing and business management).

Most employers prefer nurse case managers who possess the CCM credential. The CCM is available to health care providers licensed to practice independently in the American health care system. For example, the certification would be available to registered nurses, but not licensed practical nurses (LPNs) who are not licensed to assess and evaluate the health of their clients. Employers also prefer case managers with master's degrees and appropriate clinical experience working with rehabilitation clients and patients. Salary ranges would be commensurate with the case manager's level of education and clinical experience (especially if they worked in specialty areas such as shock trauma, national rehabilitation hospitals, CARF-accredited facilities, etc.).

### Ethical Considerations

The Case Management Society of America (CMSA) revised their Standards of Practice in 2010. The CMSA Standards of practice are applied to clients that are involved in case management services. CMSA stated that the practice settings for case managers have increased dramatically over the past 20 years and thus their standards were revised to capture the evolution of and the increase of venues that case managers work (CMSA, 2012). The 2010 Standards of Practice for Case Management included the following ethical considerations:

- Addressing the total individual, inclusive of medical, psychosocial, behavioral, and spiritual needs
- Collaborating efforts that focus upon moving the individual to self-care whenever possible
- Increasing the involvement of an individual and a caregiver in the decision-making process
- Minimizing the fragmentation of the health care delivery system
- Using evidence-based guidelines, as available, in the daily practice of case management
- Focusing on transitions of care, which includes a complete transfer to the next care setting provider that is effective, safe, timely, and complete
- Improving outcomes by utilizing adherence guidelines, standardized tools, and proven processes to measure a client's understanding an acceptance of the proposed plans, his or her willingness to change, and his or her support to maintain health behavior change
- Expanding the interdisciplinary team to include clients and/or their identified support system, health care providers, including community-based and facility-based professionals (i.e., pharmacists, nurse practitioners, holistic care providers, etc.)
- Expanding case management role to collaborate within one's practice setting to support regulatory adherence
- Moving clients to optimal levels of health and well-being
- Improving client safety and satisfaction
- Improving medicine reconciliation for a client through collaborative efforts with medical staff
- Improving adherence to the plan of care for the client, including medication adherence

These changes advance case management credibility and complement the current trends and changes in health care. Future case management Standards of Practice will likely reflect the existing climate of health care and build upon the evidence-based guidelines that are proven successful in the coming years.

## THE VOCATIONAL EXPERT

### Role and Function

Social Security is a program that collects money from a worker's salary along with employer contributions to provide an income in old-age retirement. However, the Social Security Administration also has a disability program administered by the Social

Security's Office of Disability Adjudication and Review that allows a person too disabled to engage in substantial gainful employment the opportunity of collecting social security benefits before the normal retirement age. The Social Security Administration recognized early in their disability program that vocational functioning was the major factor in determining disability. According to the Social Security history web page:

> In June 1960 a decision was rendered by the Second Circuit Court of Appeals which materially changed both the administrative and judicial approach to disability cases. The court held that a denial of disability benefits could not be sustained on the "mere theoretical ability" to engage in substantial gainful activity. Rather, held the court, where a claimant for disability benefits has presented evidence to show that he is precluded from engaging in his usual, prior, or customary occupations, there is a burden on the administrative agency to produce evidence showing what other work, if any, he can still do and what employment opportunities in such work are available to him. This landmark case was Kerner V. Flemming and the requirements enunciated by the court have become known as the "Kerner criteria."
>
> Initially, the Social Security Administration attempted to meet these requirements by citing selected government and industrial studies. These studies showed the results of surveys reflecting information that individuals with certain impairments were presently, or had been in the past, engaged in various types of occupations in American Industry. This approach was soon rejected by various courts as being speculative and theoretical in determining whether there were employment opportunities available to disability claimants who were unable to perform their usual jobs. To overcome this criticism, the Social Security Administration decided to employ vocational experts at administrative hearings, at which time these expert witnesses would address their testimony to the claimant's particular and highly individual situation in an effort to satisfy the Kerner criteria. (ssa.gov, 2012, p. 1)

The Social Security Administration sought guidance from the American Psychological Association and the American Personnel and Guidance Association in establishing the role and function of a VE. They eventually changed their laws to allow a VE in their process to assist in the decision on awarding disability to individuals who by reason of a disability could not be expected to work. Because of this long history of using VEs, Social Security's rules, regulations, and procedures have heavily influenced the parameters of VEs in private practice. VEs are now employed in legal settings where the determination of a person's ability to work and at what wages is central to their role. It was a short leap for VEs who testified in Social Security hearings to branch out to other legal settings that were concerned with findings of disability and its effect on work potential. Whereas various courts had previously allowed physician testimony related to ability to work stand as vocational testimony, increasingly the courts found that testimony challenged based on the physician's lack of knowledge of the structure of work and jobs. Currently, physicians testify concerning medical conditions and their treatment as well as the physical or mental functional losses from those conditions. However, they generally do not testify on how those functional limitations affect the ability to work at specific jobs or its impact on wages. That testimony has become the role of the VE.

From the previous description, it is obvious that VEs work in legal settings with the purpose of assisting the trier of fact, either a judge or jury, in determining the impact of disability on the ability to work or on wage potential. In certain legal settings such as Social Security, long-term disability insurance, teacher retirement, railroad retirement,

and so on, the vocational decision to be made is: *Can the injured person, called the claimant, work based on those systems' rules for awarding disability benefits?* The vocational testimony in that type of case is related to the person's ability to perform at their customary job. The testimony of the VE may expand to include if the claimant has skills that would transfer to other jobs given the functional limitations imposed by the disability, or, if the claimant can perform any work in the regional and national economy. As an example, a schoolteacher who claims to be unable to teach due to a physical and/or mental disability might apply for disability. A VE is retained to offer an opinion of the teacher's ability to teach given certain functional limitations. For the testimony, the VE is an impartial witness who needs to understand the essential functions of the job as well as the impact of disability on the ability to function.

In other types of litigation such as a personal injury or workers' compensation injury, the vocational question to be answered is: *Can a person work at his or her old job or any other job given certain functional limitations and, if not, what is the future diminution of earnings expected due to this injury?* In some venues the question of the VE might be what his or her vocational disability percentage is. In those venues, the VE provides testimony regarding the ability to work at any job as well as any potential future diminution of earnings given the disabled individual's age, education, past relevant work, and limitations. As an example, a 44-year-old male with a high school education who was employed running a paper-pressing machine had his dominant hand and forearm caught in the press resulting in a crush-and-burn injury rendering the dominant hand nonfunctional other than as an assist. A VE was retained by the injured worker's (plaintiff) attorney to testify at his trial, which was against the machine manufacturer (defendant), as to his skills and wage potential preinjury and postinjury. A second VE was engaged by the defendant to testify on the same case to counter the plaintiff's VE. This is called a product's liability case since the product or machine manufacturer was being sued for a faulty safety device. This is an example of an adversarial trial in which two VEs were employed. The defendant's VE might have been employed to do the same type of vocational assessment as the plaintiff's VE. Alternately, the defendant's VE may be employed to review the work of the plaintiff's VE to make suggestions to the defense attorney on weaknesses in the plaintiff's vocational assessment or testimony and provide questions to be used at trial against the opinions provided by the plaintiff's VE.

### *Impartiality*

A VE working in any setting is hired to be an impartial expert witness. These proceedings are often adversarial and the goal of each side, plaintiff and defense, is to win the case for their respective employer, generally either the injured worker or an insurance company. Other settings may be less adversarial and only employ one VE to provide vocational testimony. Regardless of the employer, it is expected that the VE provide testimony from an impartial perspective to assist the trier of fact in reaching a fair and impartial conclusion to the case by applying the law to the parameters of the case. It is not up to the VE to decide who is right or wrong or even what law is at play. Rather, it is up to the VE to provide vocationally relevant testimony and objectively answer the vocational questions asked. Attorneys involved are acknowledged advocates for their clients while VEs advocate only for their opinions. It is expected that those opinions are unbiased. In most civil proceedings, a lay witness can be allowed to testify and that testimony is only on what they have directly observed. An expert witness, however, is given more latitude to express an opinion if the opinion is within his or her area of recognized expertise.

### Duties of the Vocational Expert

VEs in private practice work in a variety of settings for multiple employers while often retaining their own VE business. VEs are utilized in any venue where there is question concerning the ability of an injured worker to work and earn wages given their age, education, past relevant work, and limitations. They are also used in cases where information is needed on an individual's worth in the labor market. It is usual that VEs will work for both plaintiff and defense cases without taking the side of either. Cases range from the catastrophic involving limitations of multiple body systems to cases involving only few limitations. However, the question generally posed to the VE is that can the person work, what can they do, and is there an associated wage loss as a result of the impairment? Other settings might require the VE to cite authoritative sources concerning the numbers of cited jobs in a region, the wages of cited jobs, or even current openings for recommended jobs. Some of the venues include disability hearings, divorce cases, workers' compensation disputes, product liability litigation, personal liability, wrongful termination, and even outplacement counseling for closing businesses.

In some instances, the law determining the compensation for an injury might have a certain amount of money that is reduced by a percentage of disability. In those cases, the VE is asked to provide a vocational disability rating that can be based on a number of factors including percentage of expected wage loss, percentage of lost access to the labor market, percentage of participation of individuals with disabilities in the labor force, unemployment percentage, and so on. Generally, each state's law in this area will determine what can be utilized in vocational disability percentage computations. Whatever the conclusions of the VE, it can be expected that one side of the case might like all or parts of the VE testimony while another side might not causing a challenge to the VE conclusions.

### Types of Cases and Knowledge Domains

VEs primarily work with individuals who have a disease or disability when it produces physical limitations, mental limitations, or a combination of both. Therefore, disability is the common feature of clients served thereby requiring an educational background and understanding of the effects of disabling conditions on an individual's capacities. VEs are also expected to understand the nature, culture, work demands, wages, work life expectation, and availability of occupations. Educationally, it is necessary to take one or more courses on medical and psychosocial aspects of disability. VEs can also be called upon to utilize their skill set in nondisability settings or to only provide a few functions of their normal work. Cases in these instances might include work issues related to divorce, transferability of skills, or career counseling. For example, in a divorce case involving a husband who earned over $300,000 per year as a forester and a stay-at-home wife of 25 years, the question was asked by the judge as to the income potential of the wife for the purpose of determining alimony. A VE was retained to provide an opinion and interestingly, while the judge ordered the services of the VE, the VE's bill was paid by both parties. Some VEs have branched out to perform career counseling for youth or mid-career individuals trying to find a job fit for their vocational interests and aptitudes. VEs have also been employed to assist workers losing their job in determining a new job, assist people with job placement, perform transferability of skills analysis, and locate jobs to assist other VEs or perform job analyses for employers to assist them in determining the essential job functions of their workers as required by the Americans with Disability Act. In addition to coursework in medical and psychosocial knowledge,

VEs need coursework and experience in occupational information and job placement. VEs utilize a variety of tests to assist them in their work and also have to be qualified to give those tests meaning at least having a master's degree with a course in tests and measurements. Fortunately, educational program accredited by the Commission on Rehabilitation Education (CORE) requires all the courses suggested in this section. The only other knowledge or ability of major importance is the ability to testify which is most often developed through temperament and experience rather than in the classroom.

### *Methodology*

The standard of practice for VEs requires proficiency in at least four areas: interviewing, testing, researching vocational information, and communication, particularly in providing effective testimony in legal settings. Referring agents who hire a VE would most likely choose the last item of providing testimony as the most important. If a VE cannot effectively communicate his or her results to a judge of jury or cannot handle a withering cross-examination without properly explaining the basis for his or her opinions and sticking to those opinions, then they are not helpful in a case regardless of how good their work has been to that point. The typical methodology for a VE most often involves receiving a referral, reviewing medical and other information, interviewing the injured worker, giving and scoring vocational tests, reviewing job information, formulating an opinion, and writing a report. If the case proceeds to trial, then the VE would be expected to attend the trial as an expert witness to report on his or her process and findings and answer questions on an examination and on a cross-examination generally asked by the plaintiff and defense attorneys and possibly the judge. They may provide VE testimony in an informal hearing with just the primary parties, attorneys, court reporter, and the judge present or he or she may be in open court with those parties plus a jury and a gallery of witnesses or onlookers.

VEs in private practice are required to market their services and develop their own referral sources. For referrals received related to workers' compensation or personal injury litigation, a referring attorney will call or email the VE to ask questions of the VE about his or her work and ask for his or her willingness and interest to become involved in the case. At that point, the referring attorney may ask for a current vitae as well as a list of previously-worked-on cases for the past 5 years, and a rate sheet on charges. The VE might have a contract that is sent to the referring attorney explaining his or her role, services to be performed, and the VE hourly rate, and they may ask for a retainer. In a retainer system, several thousand dollars or the entire fee is paid up front and the VE charges against the retainer. If the retainer is expended, the VE would request additional funds. Other VEs work without a retainer and the VE would bill at the conclusion of his or her work. An appointment is most often made for the VE to see the claimant either in the attorney's office or the VEs office and a request is made of the necessary medical, educational, vocational, or income tax records needed by the VE. The VE is expected to write the claimant and explain his or her role as an impartial expert, who was the hirer, and what procedures and outcomes would be expected. When the VE actually sees the client, that the client is extensively interviewed, and vocationally relevant tests are administered. Following the in-person assessment, the VE analyzes the education and vocational history of the client, determines from the medical records the client's functional limitations, and determines the vocational loss which can be expressed as a vocational disability percentage, a loss of access to the labor market, a reduced work life expectancy, a dollar amount of wage losses or some combination of those factors. If

the injured worker is expected to not return to previous employment, then the VE will determine the kinds of jobs the person can perform if any, wages, and potential employers. In other settings, such as Social Security, the VE must qualify with that agency and is put on a list of VEs for a particular office. The agency scheduler will ask for available days in the future and will schedule the VE on some of those. The information on the claimant generally consisting of their school, work, and medical records is sent to the VE. The VE studies this information before the hearing and he or she is present at the hearing to give testimony in response to the judge or the attorney's questions. In these settings, the VE does not see the claimant before the hearing and is not allowed to test the claimant nor ask questions other than to clarify the work history. The VE is typically asked to classify the claimant's past relevant work in regards to skill and strength requirements. The VE is asked if the claimant has transferable skills or semiskills, and to list jobs that are appropriate given certain mental or functional capacities statements, and he or she has to give the regional and national numbers of those jobs. In other settings, such as determination of long-term disability for insurance purposes, the VE will follow the procedures as performed for a litigated case, but involvement ends at the time he or she authors a report containing his or her opinions. Most VEs try to diversify their referral sources to ensure a steady stream of work and income.

### *Considerations of Litigation*

In litigated cases involving a plaintiff, the person starting the litigation, and defense, the person or entity defending against the litigation, the rules of evidence allow the other side to know what the VE did and what opinions his or he will render in court; there generally are no surprises concerning the testimony once a case goes to court. In this way, a plaintiff or defendant has the opportunity to know what will be said about him or her in court and are given the chance to prepare a defense against it. Thus, as a part of preparing their case, attorneys can depose the witnesses including the VE. VE depositions are scheduled after the VE has formulated opinions and are one of two types: a discovery deposition, or a trial deposition. The deposition is attended by the VE, a court reporter who takes down and later transcribes everything said while on the record, and two or more attorneys. In a discovery deposition, it is set up and usually paid for by the other side who becomes the primary person to ask questions of the VE. They will inquire in detail about the VE's background and qualifications, the processes utilized, the opinions they formulated, and the basis of those opinions. These can be far-ranging affairs asking questions on any topic of interest to the attorney from information on the VE's relatives to past cases to overall income and charges for that case. The attorney from the opposing side is trying to glean information to use against the VE in court in front of the judge or jury. The standard advice for experts in a discovery deposition is to first and foremost tell the truth. Second, VEs should only answer the question asked and do not give any more information than is minimally necessary to answer the question. Everything said by the VE can be later used against him or her. In a trial deposition, the attorney hiring the VE calls the deposition and pays the VE fee. The testimony in this deposition is used in court rather than having the VE appear live at the trial. Thus, the deposition can be turned over to the judge to read or it can be read aloud to a jury with the opposing attorneys reading their parts and someone reading the testimony of the VE. In both types of deposition, the VE testimony is given under oath and becomes public record. The output of most depositions is a written transcript of the deposition. However, depositions can and are sometimes audiotaped or videotaped. In rarer instances, depositions are taken on the phone.

When a case reaches a trial court, the VE is faced with a variety of persons each with a distinct role. In all trials, judges presides over "their" courtroom and is the absolute authority in that room. For some cases, the judge has to arbitrate between opposing councils and has to make a final decision on the case with no assistance, that is, he or she are the trier of fact. In jury trials, the opposing councils put their case to a jury who becomes the trier of fact and recommends the final decision to the judge. In those hearings, the main role of the judge is to arbitrate between the two sides to assure the rules of court are followed. Once a jury has found in favor of one side, the judge applies the law to the situation to meld out the award or penalty. In addition to a judge and possibly a jury, these proceedings always employ a court reporter who takes down everything said in court, sits near the witness, and may interject in the procedure to be sure they are recording the witness correctly. There may or may not be an officer or guard to keep order in the court.

The witness is placed in a witness stand generally next to the judge. The two parties to the suit are separated to two different tables facing the judge and they may ask their questions from the table or from a podium standing in front of the judge or jury. The plaintiff and defense table are often occupied by several people including the parties involved, attorneys, and legal aides. The VEs are often kept out of the court or sequestered, until it is their time to testify. They are summoned by the court officer or the attorney that retained them and they walk up to the witness box. The court reporter administers the oath and when the judge tells the VE to take a seat, the VE then steps into the witness box and sits down. Paper, a folder, a box of materials, or a computer are allowed. The VE does not leave the witness stand until dismissed by the judge. If a break is taken, the judge will declare a break and the witness in the box is expected to stand up while the judge and/or jury exits the room and again to stand when they reenter. The VE witness is asked questions by one side in the examination, and then by the other side in the cross-examination and he or she can be cross-examined multiple times until both sides are finished with the witness. The judge might also ask questions of the VE, juries do not. When the VE is excused, it is best to leave the courtroom so as not to appear to have a vested interest in the outcome of the trial. In more informal hearings, the VE is often in one spot around a table with the presiding judge at the end and the other parties sitting around the table. The VE is sworn in by the judge and answers questions when it is his or her turn without all the formality of a trial court.

The appearance and demeanor of the VE in court can be as important as what he or she says. It is therefore imperative that the VE dress professionally and maintain a calm demeanor when answering questions. Attorneys will often do things such as ask multiple questions rapidly or raise their voice in challenging the VE while asking questions. The purpose of these tactics is to encourage the VE to agree to something he or she might not mean to agree to or to rattle the VE so that he or she gives confusing or contradictory testimony. It is incumbent on the VE to insist that multiple questions be broken apart, to have a person repeat a question if it is unclear, and to listen to the question and calmly and rationally answer the question. Often, the side that employs the VE will ask broad questions and give the VE a great deal of latitude in answering them. For example, a question posed to a VE might be—"Explain how you reached your conclusions?"—rather than inquiring about every piece of the process. In preparing for the trial, it is helpful to spend time rereading the important parts of depositions or documents important to the testimony. Also, information that was used in preparing the case needs to be well organized and contained in a standard manner in the file so that the VE is not fumbling around during the testimony looking for information. This presents the impression of an unorganized unprofessional witness.

### Employers

Employment opportunities for VEs exist in a wide variety of organizations. These can range from self-employment, the Social Security Administration, insurance companies, self-insured employers, private-for-profit rehabilitation agencies, community rehabilitation providers, the Veterans Administration, and other related rehabilitation agencies. The opportunities for self-employment as a VE often emerge after working as a rehabilitation counselor for several years and developing a positive reputation. The referral of cases to VEs occurs via word of mouth by attorneys who litigate the cases (both plaintiff and defense), or can result from advertising. If excellent work is displayed, an attorney will feel comfortable working with the VE and refer future work and possibly recommend the VE to other attorneys. However, to work in a self-employed capacity as a VE takes additional skills to successfully operate a business in addition to the skills a VE needs to complete their work. Thus, the prospective self-employed expert needs the appropriate experience, education, and entrepreneurial skills (i.e., marketing and business management).

Most employers prefer VEs who possess the Certified Rehabilitation Counselor (CRC) credential. The CRC is available to rehabilitation counselors who possess the appropriate educational background (MA in rehabilitation counseling required, PhD preferable). In addition, licensure as a professional counselor (LPC or LCPC) is also a desirable credential for VEs. There are also some additional credentials that VEs could obtain depending on their area of practice. One example of these additional credentials would be the CLCP credential that is discussed in the next section of this chapter.

In summary, employers of VEs seek a VE with significant clinical experience, certifications, licensure, publications, and related vocational achievements. The selection of a VE and the related testimony can be a significant factor in the outcome of a case. Thus, the employers will seek out those VEs who are most qualified, have experience testifying, and have outstanding reputations. It would be very difficult for a recent graduate of an MA rehabilitation counseling program (with little experience) to break into the forensic market on his or her own and it is recommended that new VEs work under an experience mentor when starting. Salary ranges would be commensurate with the VE's level of education and clinical experience (especially if they have extensive experience testifying, have published peer-reviewed articles, etc.). If the VE is self-employed, then the income level also depends on his or her ability to bring in new cases and referral sources.

### Ethical Considerations

The issue of ethics for VEs has become more complex recently with the rulings of *Daubert v. Merrell Dow Pharmaceuticals, Kumho Tire Company v. Carmichael,* and other cases. Ethics are the standards or rules that govern the conduct of an individual or members of a profession. Each VE will belong to several organizations (IARP, ABVE, etc.) and possess various certifications (CRC, CDMS, PVE, CLCP) and/or licensure (LPC, LCPC). The VE would be held accountable to each profession's code of ethics. A code of ethics is a statement of principles that guides the members of the organization in conducting their business. It is a guide to ethical behavior and is utilized to adjudicate ethical issues when an individual is alleged to deviate from the ethical code.

The CORE is a specialized accreditation organization that accredits graduate programs, which provide academic preparation for a variety of professional rehabilitation counseling positions (rehabilitation counseling and VEs). CORE also accredits undergraduate programs in Rehabilitation and Disability Studies. Each rehabilitation

counseling program is assessed in accordance with the Standards for Rehabilitation Counselor Education Programs, published by CORE, and accredited programs are periodically reviewed every 8 years to ensure that they remain in substantial compliance. CORE accredits approximately 96 university- and college-based rehabilitation counselor education programs at the master's degree level. Accreditation serves to promote the effective delivery of rehabilitation services to people with disabilities by stimulating and fostering continual review and improvement of master's degree rehabilitation counselor education programs. As stated in its bylaws, "the mission of CORE is the accreditation of rehabilitation counseling programs to promote the effective delivery of rehabilitation services to individuals with disabilities by promoting and fostering continuing review and improvement of master's degree–level RCE programs. It may also serve to assist and advise in the development and refinement of university-based undergraduate rehabilitation education programs" (CORE, 2012).

### *Ethical Dilemmas*

VEs that are striving to build their business and working to obtain new referrals and referral sources could compromise their ethical principals. Accurately representing their credentials, maintaining a clear and consistent fee schedule, clearly defining confidentiality issues, truthfully reporting witnessed behaviors, making disparaging remarks about other VEs, and understanding the specialized role that a VE plays in the litigation process are all potential pitfalls for VEs. The above areas are common ethical dilemmas that may occur when working as a VE. Violation of codes of ethics may result in disciplinary action taken by an organization to which the individual expert belongs to. In addition, violations of codes of ethical standards can result in legal action, rebuke, and admonishment. VEs could have their credentials revoked by the organizations that they belong to and be barred from using their credential or in worse cases, barred from the license that allows practice in some states. Perhaps most significant, the ethical violations can tarnish the public's trust in the professions associated with such behavior.

Recent research on ethical dilemmas examining the public (state–federal system) and private sectors of rehabilitation counseling (workers' compensation, LTD, and forensic) found significant differences between the two distinct sectors of vocational rehabilitation. Beveridge, Garcia, and Siblo (2012) presented their research at the NCRE annual conference. Their presentation, "Ethical Dilemmas: Are There Differences Between the Public and Private Sectors?," determined that the main difference was in the nature of ethical dilemmas experienced by each group. The public rehabilitation counselors experienced more ethical dilemmas in the area of the counseling relationship and, by extension, the counselor's relationship to the client's family members (section A and B of the CRC Code of Ethics). The private sector rehabilitation counselor, however, experienced conflicts that relate specifically to providing forensic and indirect rehabilitation services (section F of the CRC Code of Ethics).

### *Risks and Considerations in Owning a Private Practice*

The decision to become self-employed as a VE should not be taken lightly. It takes a significant amount of education and experience as a rehabilitation counselor to qualify as an expert witness. In addition, the self-employed VE needs additional entrepreneurial skills to successfully run a business. These additional skills include business management to run the daily operations of the business, supervise employees, and comply with state and federal regulations. Accounting skills are required to monitor

cash flows, accounts receivable, and accounts payable. Marketing skills are required to develop referral sources and new business accounts and grow the business. Thus, in order to become a successful self-employed VE requires an individual to possess skills not normally required to work as a rehabilitation counselor. Any individual starting a new business takes a significant risk when becoming self-employed and must work extremely hard to successfully operate the business.

### Fees

A vocational rehabilitation counselor in private practice has a commodity for sale, which is the use of specialized expertise expressed in terms of time. The amount charged depends on the market, the practitioner's expertise, and the going rate as well as the competition. If the VE develops a special area of expertise and a positive reputation, he or she can charge as in any business. Most VEs bill by the hour in order to be adequately compensated for the amount of work that performed. A contingency fee or an agreement to make fees contingent on the outcome of the case is clearly inappropriate and unethical. Doing so suggests a bias or special interest in providing testimony that would influence the outcome in a particular direction. VEs advocate for their impartial opinion, not for one side of a case or the other.

Once the fee schedule is determined, it is important to share that information with employing attorneys. Similar to attorneys, most VEs require advance payment or a retainer to start working on a case. It is best to clearly explain the fee schedule in writing via a letter of agreement, a signed contract or other written confirmation of the engagement for services. Generally, the cost of those services is charged to the retaining attorney.

To start working as a VE, referral sources have to be aware of a service. Attorneys only hire VEs when the need arises so it is wise to market where attorneys look for expert witnesses (expert directories, professional organizations, colleges and universities). The marketing strategies utilized will have a significant impact on the financial success or failure of a VE. Perhaps, the best marketing technique is doing an excellent job on those first referrals so that a positive reputation is developed. Finally, marketing in a professional manner is essential. The expert must be perceived as competent in his or her area of expertise to obtain referrals as a VE or expert witness.

## LIFE CARE PLANNING

In 1981, Dr. Paul Deutsch published part of the *Damages in Tort Action* series making the first mention in the literature about life care planning (Deutsch & Raffa, 1982). Later, he teamed up with Dr. Horace Sawyer, a professor of rehabilitation counseling at the University of Florida, and they produced the first edition of their groundbreaking volumes on private rehabilitation popularizing the notion of life care planning (Deutsch & Sawyer, 1995). A new specialty and industry were born.

A number of life care planning summits have been held on the subject since the Deutsch and Sawyer work with one of the first in 2000 providing a definition. That early summit defined a life care plan as follows (Weed & Berens, 2011):

> A Life Care Plan is a dynamic document based upon published standards of practice, comprehensive assessment, data analysis and research, which provides an organized concise plan for current and future needs with associated costs, for individuals who have experienced catastrophic injury or have chronic health care needs. (p. 5)

In essence, the life care plan is a written document prepared by a life care planner to outline any costs associated with an injury whether they are vocational loss, medical costs, equipment needs, training needs, housing, transportation, displacement, or any other costs resulting from that injury or health issue. Life care plans are most often used in litigated cases in court systems to assist the court in setting the monetary damages that might be awarded an injured party. As an example, a young man, high on drugs, drove his car in a small rural town. He crested a hill on the wrong side of the road crashing head-on into another vehicle driven by Sarah, a 25-year-old woman on her way to her babysitting job. Sarah suffered a traumatic brain injury as a result of the collision leaving her with slowed mental processing, impaired reasoning, a speech impediment, double vision, inability to walk unaided, and a loss of coordinated movements of her hands. Sarah retained an attorney who sued the driver that hit her and his insurance company for actual damages plus pain and suffering. A life care planner was employed to answer the question "What damages (costs) are associated with this traumatic brain injury?" In reviewing the situation, the life care planner noted that Sarah had undergone extensive residential treatment at a state teaching hospital and was still in several outpatient therapies in her hometown plus she was required to have periodic follow-up at the teaching hospital and from her local physician related to the motor vehicle accident. Sarah's mother had to quit her job to take care of Sarah both during her hospital stay and while at home and it was determined that Sarah would need attendant care the remainder of her life. Sarah utilized multiple types of durable medical equipment and needed a modified van with a wheelchair lift for her transportation. She was on various drugs to help her with her memory and coordination issues. It was recommended that she has to be provided cognitive retraining software, mental health counseling, continued physical and occupational therapy, and therapeutic recreational services. Everything she needed has a cost and it was the life care planner's job to determine the necessary items or services and their associated costs and list those as the damages to be recovered in the legal proceedings. While many people have private insurance or access to state or federal programs that might partially pay those costs, reimbursement programs have a clause requiring any funds spent by that insurance company or agency to be reimbursed if there is a third party found liable and any monetary award made based on that liability.

In tort reform that swept through America in the 1990s and later, state legislators tried to stop what they considered outrageously high civil awards by putting caps on how much a person could receive in injury litigations. In addition to the costs from actual damages, many states used a multiplier of the actual damages to determine the maximum allowable awards for the injured person. For example, state law might impose a cap of three times the actual damages as the maximum recovery in litigation which often asks for actual damages plus punitive funds and money for pain and suffering. By this action, the amount of actual damages has become an increasingly important component of personal injury litigation in that it often determines the maximum liability. Life care plans have grown as a popular method to utilize in those situations to determine the actual damages. Prior to life care plans, attorneys would ask a judge or jury to award some amount of money to the injured person with little or no reasoning as to the amount.

There is a second major use for life care plans. In addition to determining the worth of cases in litigation, life care plans can be used by the insurance industry, conservators, and others in planning the amount of set aside funds that will be needed to provide future care to an individual with a disability. Thus, a state program that plans future expenditures for residential care for its disabled youth might utilize the services of a life care planner to determine the future costs which will have to be borne by the state and

to gain some notion of when those funds would be required. Similarly, an estate planner for an elderly person with a disability or a divorce situation requiring one party to pay for care for their disabled spouse might use a life care planner to detail future costs and current set asides to cover those costs.

Typically, life care planners report that their services are for those with catastrophic injuries or health conditions. This is interpreted to mean those who have undergone significantly disabling problems that result in multiple functional limitations or who will need recurring future treatment or care. As noted by Weed and Berens (2010), these might include those with traumatic brain injuries, burns, spinal cord injury, amputations, HIV/AIDS, mental illness, organ transplants, chronic pain, visual impairments, or elder care. It also may include those with developmental disabilities or any other chronic debilitating condition.

According to Berens, Johnson, Pomeranz, and Preston (2011), "life care planners come from many disciplines, including registered nurses, rehabilitation counselors, physicians, psychologists, occupational therapists, physical therapists, and speech/language pathologists" (p. 79). It is impossible for any one of these professionals to have the knowledge of each area that might need to be included in a life care plan, which by its nature is a comprehensive document covering a broad spectrum of services, equipment, and supplies. Part of the ethical consideration for life care planners is to realize the boundaries of their expertise. The life care planner can contribute their know-how to the area(s) of their professional knowledge, but they have to utilize other professionals or professional standards of practice as the determinant of needed services beyond their expertise. Standards of practice are lists of best service provision by a provider that are incorporated by professional associations of service providers and often published online. Life care planners can work as a team of related professionals, employ consulting providers to assist with the needs from their profession, or utilize those published standards of practice from professional organizations to determine the services and amount of services needed. For example, a physical therapist (PT) would be well acquainted with the amount of PT and possibly occupational therapy (OT) that might be needed for a T-12 paraplegic, but they would be hard pressed to know how many counseling sessions might be needed in the future or to determine all the potential medical complications and resultant surgeries that might result from that injury. In that case, the PT life care planner could consult with the appropriate professionals or review their standards of practice to understand what to recommend. Another thing these various professionals can do to improve their understanding of the processes from various fields is to join a professional organization for life care planners and seek certification in life care planning to demonstrate they have experienced training in the methodologies of this field. The International Association of Rehabilitation Professionals offers a section of their organization devoted to life care planners and there are national certifying examinations in Canada and America with the International Commission on Health Care Certification being the home of life care planner certification in the states.

### *Life Care Planning: The Process*

The process of developing a life care plan is similar on the front end of performing a vocational evaluation or intake of a consumer for rehabilitation case management. A referral is received and the life care planner requests or is provided information that documents the injury and resultant services and procedures. These are usually medical and therapy records from the date of an event to the present. Those records document

evaluations, treatments, and projections by the professionals involved in the injured party's care and treatment. In addition, the life care planner may request income tax records, pharmacy records, educational records, or other information as they feel are important to developing the case. If there are major gaps in the information provided, the life care planner might request the referrer to pay for additional evaluative services from service providers. Thus, nonphysician life care planners often ask that a rehabilitation team or medical doctor such as a physiatrist or neurologist evaluate the injured person or look over the medical part of the life care plan to determine accuracy or make suggestions. A nonphysician life care planner may be inclined to incorporate the costs of medically necessary prescription drugs in the future. Not being trained in the area of pharmacology, it would be prudent for the life care planner to involve a physician in that section of the life care plan. This can be done by having an independent medical evaluation from a physician who becomes actively involved in the plan development, by having a physician look over a developed plan and attest to the medical necessity of the various prescription drugs, or, having the life care planner develop a list of prescription drug questions to be asked of treating physicians at their depositions. In some cases, the medical assessment and treatment information is of such poor quality for life care planning that the life care planner may seek a referral to a rehabilitation team to perform a comprehensive rehabilitation evaluation that forms the basis of the medical part of the life care plan.

Following referral and the study of available documents, the life care planner schedules a meeting with the injured person and his or her family. That initial meeting is most often held in the home of the injured person. The reason to go to the person's home is to evaluate the home environment to see if it will be adequate in the future or needs modification, to gain information from the relatives about the person pre- and postinjury, and to inventory the various equipment, supplies, medical treatments, home modifications, transportation, and so on that the person is already using or is badly needed. For example, a person in a large wheelchair may find it is impossible to fit his chair in a car, taxi, or other public conveyance. In that case, the only transportation options are using an ambulance to transport them to his various treatments or purchasing a customized van. The transportation need is quickly discovered in a home visit. It is helpful having the immediate family or caregivers present in the interview. The family can provide various insights and it helps the understanding of the life care planner to see the family dynamics in play.

After an extensive interview, the life care planner might have vocationally relevant tests to administer if they plan on doing the vocational loss projection. The planner also needs to thoroughly study the living arrangements, size, and layout of the house. This might include measuring the width of door opening as well as the space and layout of the bathroom, kitchen, and injured party's bedroom and available entrances to the house noting the existence of ramps or the availability of space on which to construct equipment storage, an extra room, a larger bathroom, walkways, or covered parking. A scale drawing of the structure can be made, and often pictures of the home and home limitations are taken to provide a visual of the structure and its parts.

On a recent plan, Michael, a young man in high school was involved in a fight with neighbor kids that resulted in a high-level cervical injury rendering him a C-3 tetraplegic, that is, he had no control of his legs or torso and little usage of his upper extremities. He was living with his family in a single wide mobile home that could not accommodate his electric wheelchair; so, even though he had a wheelchair, he spent his days lying in the bed by himself as his mother worked. The life care planner in this case determined that the mobile home was unsuitable for Michael's needs and recommended a new doublewide mobile home built to be handicapped-accessible with electronically controlled

doors and ramped entrances on the front and back of the home. Following the home visit and interview, the life care planner reviews notes and medical information and begins to list out the injured person's needs under one of a group of usual categories. Life care plans often touch on many of the following areas of recommendations:

- Future medical evaluations
- Future medical treatments
- Future nonmedical evaluations
- Future nonmedical treatments
- Medications
- Potential future surgeries or treatment
- Durable medical equipment
- Wheelchair needs, equipment and/or wheelchair maintenance
- Orthotics/Prosthetics
- Assistive technology
- Supplies
- Transportation
- Architectural needs
- Home furnishings
- Recreation
- Educational assessment/Services
- Attendant care
- Vocational loss including wage loss and diminution of future earnings

Recommended needs are listed on a table under each category and the starting and ending dates for the need is listed along with the reason for that particular need, the person recommending it, and the cost of the product or service. At this stage, the life care planner has a good notion of how the completed plan will appear and what it will contain. From the records reviewed, the interview and home visit, much of the person's needs are apparent. It is then up to the life care planner to document those needs and determine the costs of services, equipment, and supplies. It can be helpful to meet or consult with involved physicians, therapists, or educators to ask for their recommendations under their areas of practice. It is also additive to review the standards of practice for the various disciplines involved to determine length of service or best practice requirements. At that stage, it is increasingly obvious where there is appropriate documentation for the life care plan recommendations and areas where that documentation will have to be provided via one of the methods listed earlier.

Once the plan is delineated, the costs have to be determined and this can be one of the more lengthy parts of putting together a life care plan. Usually, service providers or vendors are called for a determination of the costs. Preferably, providers within the home area of the injured party are utilized, as that is where the service, equipment, or supplies are most likely to be purchased. On some items, the supplies or equipment can be found at online vendors. Life care planners will often gather several prices for each item and then average those to provide prices that are not at the top or the bottom of the range. A conservative approach in determining costs is easier to defend than only picking the highest cost items. For example, a life care planner might use drug prices from a Walgreens or WalMart that the person utilized rather than check only on more expensive vendors. For areas normally covered by insurance such as a medical office visit, the private pay customer price is the one to gather as that is the price that will be charged to the injured worker using money from a settlement rather than the price negotiated by Medicare or a large insurance company. There are areas in which a

vendor may have to be paid to provide prices. For example, home modifications require the life care planner to develop the specifications, but a contractor may have to be hired to develop blueprints and determine a price. In other situations, an averaged cost per square foot can be utilized. It is important in doing this that a life care planner ensures that handicapped standards and codes are followed.

Once the life care plan is completed, it is helpful to have the injured party or their family to review it for accuracy to make sure that items are not left out. If the plan has a great deal of medical recommendations, it is worthwhile to have a physician, often a physiatrist, review it for medical accuracy and completeness. In doing a plan, a life care planner can expect to take weeks to gather all the necessary materials to formulate the plan. It is therefore essential to have the life care planner involved in the process early enough to satisfactorily complete their work without being uncomfortably rushed.

## SUMMARY

Career opportunities for rehabilitation counselors, case managers, and life care planners in the private-for-profit sector have expanded dramatically over the last 30 years. In addition, many seasoned counselors are now starting their own private practices and are working as VEs and expert witnesses in a variety of cases (i.e., personal injury, divorce, employment discrimination, Social Security, long-term disability, and workers' compensation). The labor market for private rehabilitation counselors has been expanding and is rich in opportunities for individuals who enjoy a challenging work environment. The emerging opportunities are diverse and offer many new areas where experienced counselors can apply their knowledge, skills, and abilities. Counselors who work in this environment are employed by several entities such as providing ADA consultation to businesses, working for attorneys (plaintiff and defense), insurance companies, and the Social Security Administration. Many opportunities now exist in the area of private-for-profit rehabilitation. It is up to each counselor, case manager or life care planned to determine which employment options best suit their individual needs, personality and career interests.

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# *Chapter 22: Transition From School Through Process to Outcomes*

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***After reading this chapter, you should be able to:***

1. Describe the transition from the public school perspective and the federal mandate for identifiable student postschool outcomes for assuming young adult life roles.
2. Describe the context for rehabilitation services that should begin within a timeframe prior to school separation resulting in the development of those life roles in which to transition.
3. Identify the similarity between existing rehabilitation services and transition planning to attain student outcomes to construct connections for the development of student transition.
4. Recognize the potential of collaboration for maximizing transition potential to attain student outcomes by actively participating in the development of collaborative activities.

From the time that transition was described and delineated in the Individuals with Disabilities Education Act (IDEA) in 1990, there was an assumption that special education would address the task and that graduation would assume new meaning. In reality, graduation, or whatever form of school separation occurs, indicates the departure from an entitlement program to one of eligibility determination, and a transfer of program and fiscal responsibility from schools to what students and their supports can construct. Not until IDEA 2004 was there federal accounting of transition planning (Indicator 13) and transition outcomes (Indicator 14). Nevertheless, these data only document the extent of transition and do not describe either the activities or the path.

In the most basic terms, transition is the movement or separation of students in special education to postschool environments. As the law states, transition may include employment, vocational training, postsecondary education, independent living, community participation, and the typical adult roles which all students assume as they age. The expectation is that everyone moves through the stages of life; however, students with disabilities need some additional assistance or transition planning. Thus, in addition to the student's individualized education plan (IEP) a section of the document is created not later than age 16, as stipulated in legislation, and sometimes as early as 14, specifically to detail transition planning. This section includes recognition of the impending transition from school, and includes objectives and activities to achieve identified outcomes based on interests and desires. The entire initial process begins and is contained within the student's educational program. Consequently, public school teachers and transition specialists assume the role of identifying transition outcomes, developing the plan for attainment, and implementing the process.

In the current conceptualization, transition is an educational concept which began with the simple "Bridges" model of movement to postschool which varied for students from no services needed, to time-limited services, to ongoing service need (Will, 1984). The idea of transition provides meaning for secondary education to address the original follow-up studies that provided a dismal baseline of student outcomes (Hasazi, Gordon, Roe, et al., 1985a; Mithaug, Horiuchi, & Fanning, 1985; Wehman, Kregel, & Barcus, 1985). Research, best practices, and model development have permeated the literature from early and continues to current efforts much more prevalent than to list a few sources of this research (Rusch, DeStefano, Chadsey-Rusch, Phelps, & Szymanski, 1992; Rusch, 2007; Sitlington, Neubert, & Clark, 2010; Test, Aspel, & Everson, J., 2006; Wehman, Moon, Everson, Wood, & Barcus, 1988). However, in spite of all the study, transition remains a promising rather than common practice, and is conducted by teachers who must invite rehabilitation professionals to participate. The following provides some parameters for how transition might be conducted with recognition that each situation will provide some definition.

## FOUNDATION FOR TRANSITION

Two primary pieces of legislation frame the context for interagency collaboration to support youth with disabilities in the transition process by indicating mandated core services. For school personnel, it is the IDEA of 2004 (PL 101-476), and for rehabilitation providers (i.e., state vocational rehabilitation counselors (SVRCs) and centers for independent living personnel [CIL]), it is the Rehabilitation Act of 2006 (Rehabilitation Act; PL 102-569). Additionally, transition specialists and community rehabilitation providers (CRPs) are touched by these pieces of legislation. However, while transition specialists may be under the mandates of IDEA or the Rehabilitation Act or both, CRPs mentioned in the Rehabilitation Act do not have specific mandated core transition services. It is important to note that while transition specialists may fall under the guidance of IDEA and/or the Rehabilitation Act, they are not specifically be named in either of these laws and this title varies from state to state in both meaning and existence (see Table 22.1).

By observing the mandates of IDEA and the Rehabilitation Act, one can see that under these guidelines some professionals have specific roles grounded in the law and that there are a spectrum of transition supports and serves evident, from community

**Table 22.1** *Transition Mandated Services: Guidelines for Services Not Expectations*

| Transition Professionals | IDEA (*Entitlement*) | Rehabilitation Act (*Eligibility-Based*) |
|---|---|---|
| Educators | Required to have transition plans as part of the IEP beginning at age 16 | None |
| [a]Transition specials | Required to have transition plans as part of the IEP beginning at age 16 | Employment Assistance<br>Training for Employment |
| SVRCs | None | Employment Assistance<br>Training for Employment |
| CILs | None | Information and Referral<br>Individual and Systems Advocacy<br>Independent Living Skills Training<br>Peer Counseling |
| CRPs | None | None |

[a]Not specifically named in either the IDEA or the Rehabilitation Act but may be under one or both of these mandates due to the funding mechanisms for their position. This position varies nationally.

Modified from Oertle (2009) and Oertle et al., 2013.

to employment. These guidelines provide certain basics regarding core services but do not tell professionals what to expect in interagency collaboration. The Rehabilitation Act does provide some direction for how to participate in collaboration by requiring SVRCs to have interagency agreements with state education agencies engaged in the transition process. Yet, while these agreements can be effective, they are often overly ambitious, not specific enough, and go unmonitored (Norman & Johnson, 2008). Therefore, largely left up to individuals at the state and local levels is the process of uncovering expectations and implementing effective partnerships. This means that transitioning youth and their families experience great variations in the level and quality of services from state to state, region to region, district to district, school to school, team to team, and professional to professional. Just imagine how confusing this makes the transition process for youth with disabilities and their families for which this whole structure was created.

The reality is that students age and become consumers of adult services. Also, since our dreams and aspirations will develop over time with experience, school should provide that basis for the beginning of the adult career. Trach (2012) states that there will most likely be many possibilities for transition to proceed and not to focus on a prescribed process. In each situation, the barriers and facilitators will vary so the focus must remain on the student and the components that provide access. Continued emphasis must be on what the student wants to do when he or she leaves school and how can that be attained. The solution seems to be for a development of a generic model of transition that is based on function. With that said, this chapter and text will most likely be utilized by rehabilitation professionals. The construction of the various transition components and models is informed by those professionals.

The following description of transition addresses some of the expectations and components that rehabilitation professionals provide. The crucial perspective to maintain is one that recognizes that the standard components across transition stakeholders do not vary in function and that the student will participate to some extent in each stage of the process. To whoever may read this chapter, the true test will be to assume collaborative ownership for *transition from school through process to outcomes*.

## TRANSITION GOALS AND COMPONENTS

While there has been much discussion about the process of transition, the focus must be the on outcomes that provide the description of what should be the relevant activities. At the most basic level, employment would be considered as an outcome, and job-seeking and career development as the activities. The goals should be what the student chooses with the support of advocates. These goals should determine the activities within each component of the transition process. While the goals will vary, components will remain relatively similar (e.g., planning to attain employment or evaluation of employment) while the associated activities should adjust to the context (e.g., formalized job tryouts and career exploration or not). Rehabilitation professionals must define their role or be directed; otherwise they will not be informed until the student separates from school or is referred to them.

## VOCATIONAL REHABILITATION COUNSELORS' TRANSITION ACTIVITIES

While the crux of transition service delivery is based in individualization, transition needs cannot be met without a multitude of service providers. The reality of needing multiple adult service providers to aid in a student's transition is not a novel concept; however, collaborative mechanisms and techniques have been stagnant while outcomes continue to be poor. The federal obligation for vocational rehabilitation and public schools to collaborate on transition planning does not specify the ways or extent to which vocational rehabilitation counselors are required to participate (Oertle & Trach, 2007; Plotner, Trach, & Strauser, 2012).

Although recent research states that vocational rehabilitation counselors are the most common nonschool participant involved in transition service delivery (Shogren & Plotner, 2012), the level of involvement has been disputed (Plotner, Trach, & Shogren, 2012; Trach, 2012). Much attention has been focused on the reasons for the fragmented secondary transition process, including unclear expectations (Oertle & Trach, 2007), lack of preservice and inservice training (Plotner et al., 2012), differences across states, districts, and schools (Plotner, Trach, & Fleming, in press; Szymanski & Danek, 1985), and the lack of research focusing on transition-age youth and transition systems (Plotner, Shogren, & Strauser, 2011). Successful levels of collaboration are not occurring (Plotner et al., 2012; Trach, 2012). Recently, there have been exploratory studies examining transition competencies supporting the development of collaborative partnerships with vocational rehabilitation and local education agencies (Plotner et al., 2012). Not unexpectedly, even with the lack of involvement, there are copious activities in which adult service providers such as vocational rehabilitation contribute to the transition process. Many transition models have been presented (e.g., Kohler's taxonomy for transition programming), but only one study to date (i.e., Plotner, Trach, & Strauser, 2012) has solely used state/federal vocational rehabilitation professionals' insights into developing a vocational rehabilitation transition construct (presented as Figure 22.1). Plotner et al.'s (2012) key findings include that vocational rehabilitation professionals believe that it is *extremely* important to have some level of knowledge and responsibility across each of the domains even though they are not viewed as the ones responsible for the specific activity. Unfortunately, Plotner et al. (2012) also found that vocational rehabilitation professionals are not performing these activities, nor do they feel equipped to perform such activities. Further, the domain "developing collaborative partnerships" was rated as more important and frequently performed over just two vocational rehabilitation transition domains: "promoting access and opportunity for student success" and "conducting program improvement activities." In other words, this was not considered as important or frequently occurring as most other components.

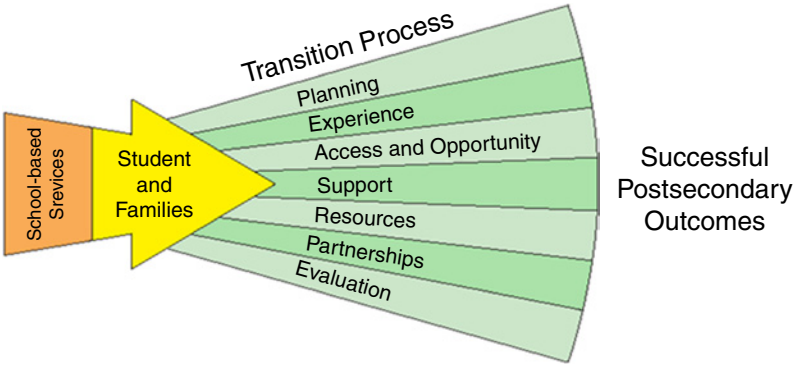


Figure 22.1 *Vocational rehabilitation transition construct.*
*Source:* Plother, Trach, & Strauser (2012).

The examination of the roles, responsibilities, and input of various disciplines in educational programs and vocational rehabilitation has not been a priority (Plotner et al., 2012). It is essential that all transition professionals move beyond consistent communication, but understand each other's roles to ensure the "coordinated set of activities" required by law (IDEA, 2004; Rehabilitation Act 1973 and its amendments). To accomplish this, many professionals believe that embracing the transdisciplinary model of collaboration could lead to enhanced outcomes (Orelove, Sobsey, & Silberman, 2006; Pugach & Johnson, 1995; Trach, 2012). The transdisciplinary model focuses on each stakeholder to work collaboratively on the same goals, sharing responsibility for planning, information sharing, and decision making together. Transdisciplinary collaboration refers to distribution knowledge and skills across disciplinary boundaries. Through this model, participants share and exchange discipline-specific roles and responsibilities to maximize coordination of services (see Table 22.2 for comparison to interdisciplinary and multidisciplinary collaboration models). There is joint responsibility for monitoring progress in goals related to their area of specialization while

Table 22.2 *Collaborative Model Descriptions*

| Collaborative Model | Description of Collaborative Model |
|---|---|
| Multidisciplinary | Experts within different disciplines assess and work with an individual in isolation from others who evaluate and serve the student. This model produces numerous, complicated, and conflicting recommendations as is often the case when transition service professionals work with a student with a disability. |
| Interdisciplinary | Features individual assessments by each service provider; however, this approach establishes formal communication channels and assigns a liaison to avoid fragmentation of services. Program planning is collaborative, but program implementation is isolated. |
| Transdisciplinary | The sharing information and skills across disciplinary boundaries. This model is intended to share and exchange discipline-specific roles and responsibilities to maximize coordination of services. Also, even when certain activities are performed by various professionals, an important difference exists from the multidisciplinary and interdisciplinary models. Several team members jointly plan and conduct the activity under the transdisciplinary model. |

*Note:* Source provides for an additional model which the authors refer to as an approach and which the remaining chapter provides some of this detail from an active process of collaboration rather than a static model.
*Source:* Orelove, Sobsey, & Silberman (2006).

providing training of other team members in best practices (Orelove et al., 2006; Pugach & Johnson, 1995).

Further, to our knowledge, no model exists that utilizes the transdiciplinary approach of collaboration that facilitates valued long-term student outcomes. Thus, each professional must define how this might be accomplished and what has been previously done.

## EVIDENCE-BASED TRANSITION PRACTICES

Test et al. (2009) have published evidence-based practices (EBP) around transition in which all professionals must familiarize themselves. However, the focus on vocational rehabilitation and EBP when providing transition services has not been explored. The lack of collaboration between school and adult service agencies leads to students leaving school without the necessary system of support to succeed in adulthood (Benitez, Morningstar, & Frey, 2009). One system ends and another begins. Schools and transition service professionals, such as vocational rehabilitation counselors, have been ineffective, in part, because school professionals have not understood the vocational rehabilitation system, the implications of the contextual model of disability for creating systems of support in adulthood, and effective strategies for collaborating with vocational rehabilitation counselors. Further, vocational rehabilitation counselors have not had a deep understanding of the needs of students in transition or the implications of the transdiciplinary collaboration approach prior to students leaving secondary education. Test et al. (2009) found that there were no EBP that fall in the domain of interagency collaboration. The lack of EBP for interagency collaboration occurs even though transition policy requires that transition planning facilitate a student's movement from school to postschool activities. Furthermore, best practice in transition service delivery emphasizes service coordination and interagency collaboration (Agran, Blanchard, & Wehmeyer, 2000; Carter & Lunsford, 2005).

It is essential that all transition professionals develop the necessary knowledge, skills, and attitudes needed to work collaboratively to apply the most contemporary understandings of disability to build systems of support that facilitate postschool success for students with disabilities. While a number of frameworks exist that describe best practices in transition (deFur & Taymans, 1995; Oertle & Trach, 2007; Sitlington, Clark, & Kolstoe, 2000), no evidence-based models exist that facilitate effective collaboration between special education and vocational rehabilitation practitioners (Mazzotti, Test, & Mustian, in press; Test et al., 2009). Thus, rehabilitation professionals must identify how they might support students' movement into employment.

## COLLABORATION FOR OUTCOMES

As has been stated throughout the chapter, the process of transition is a fluid dynamic which should begin early while the individual is receiving secondary services or otherwise it will begin when the student separates from school. Rehabilitation professionals should begin their consultation before this stage of career development. With each contact of school personnel, families, and students the foundation for successful transition is constructed to benefit each student transitioning and for future students. Not all school personnel or programs will have the same capacity, desire, or commitment. In lieu of providing a specific model, we provide a list of practices that have been enumerated in many texts and articles focused on transition previously cited in this chapter. These are programmatic elements that should be instituted in every secondary program.

Paid work experience while in school is the most desired aspect of any transition program. This one aspect has long been recognized to increase the likelihood that students would be more likely to have paid employment once they had left school (Hasazi et al., 1985b). Any rehabilitation professional recognizes the value of any experience that consumers bring to planning for employment. Even volunteer experience would demonstrate positive development, but paid work establishes that an employer was willing to invest. Rehabilitation professionals may begin with determining what exists and what can potentially be developed to begin to construct a foundation from which to initiate a collaborative relationship. They are in a better position to develop employment and possess a more extensive background.

Next, the provision of career development activities must be an integral part of the educational experience. Job-seeking skills curriculum provides a broad level of career development regarding requirements and occupations. Vocational training at employment sites through job tryouts provides a context for concepts studied in simulated environments. If access to employment sites has not been developed, another possibly more readily available option is the participation in vocational education programs. These programs have students focused on employment, careers, and postschool life. The curriculum provides exposure to the various aspects of vocational activities. The benefits of vocational education have also long been identified as being employed in higher paying jobs (Hasazi et al., 1985b) and more recently as increasing the likelihood for any employment postschool (Wagner, Newman, Cameto, Levine, & Marder, 2003). Again, rehabilitation professionals possess the experience and contacts.

In most cases, school programs do not have school-based employment specialists. Rehabilitation professionals may serve this role based on their expertise. Directing schools to consider more vocational orientation by providing their expertise and access to services they may develop is a less intrusive means of developing capacity and realigning school programs with postschool services and activities. This consultation is a great opportunity to evaluate preparation of students and to begin to develop collaborative relationships with school professionals. Trach (2012) provides some description of the various levels for developing collaboration (Table 22.3) in order to evaluate current efforts and future directions. Again, this is a self-evaluation and must be defined

**Table 22.3** *Degrees of Collaboration—Operational Definition for Scoring on the Scale of 1–6*

| | |
|---|---|
| **Coexistence** | Little or no contact; basically representatives do what they do without thought or consideration for anything beyond a particular activity. |
| **Networking** | Representatives are aware of other organizations, and assume or assigned loosely defined roles, with typically little communication, and all decisions are made independently. |
| **Cooperation** | Representatives provide information to each other, assume or assigned somewhat defined roles, with formal communication, and all decisions are made independently. |
| **Coordination** | Representatives share information and resources, assume or assigned defined roles, with frequent communication, and some shared decision making. |
| **Coalition** | Representatives share ideas, share resources, have frequent and prioritized communication, with all members having a vote in decision making. |
| **Collaboration** | Representatives belong to one system, with frequent communication characterized by mutual trust, and consensus is reached on all decisions. |

From Trach (2012).

on an individual basis. There most likely will be many variations of how to attain each level. This model for collaboration then proposes several activities on an individual level through activities related to planning, assessment, implementation, evaluation, and placement. These are all various aspects of the transition process. Depending on the willingness of school programs, it may be more efficient to begin with broad programmatic elements such as determining paid employment options and career development as indicators that true transition activities might be developed. Then, some beginning test case(s) could proceed through the individual aspects of collaborative relations. Often, general programming provides a basis for agreement and more likely success.

## EXPECTATIONS FOR INTERAGENCY COLLABORATION

As mentioned previously, rehabilitation must be invited to participate, as stipulated in legislation and in practice. The need for and importance of collaboration among school personnel and adult service providers, especially vocational rehabilitation counselors, has been discussed since the 1980s (e.g., Albright, Hasazi, Phelps, & Hull, 1981; Johnson, Bruininks, & Thurlow, 1987; Will, 1984, 1986). Furthermore in the 1990s, interagency collaboration has had a prominent position in transition models (e.g., Kohler, 1993, 1996; Plotner, 2009; Plotner, Trach, & Strauser, 2012) and has been shown to have a positive association with successful transition outcomes (e.g., Benz, Lindstrom, & Yovanoff, 2000; Bullis, Davis, Bull, & Johnson, 1997; Burr, 2011; Gowdy, Carlson, & Rapp, 2003; Horn, Trach, & Haworth, 1998; Morningstar, Kleinhammer-Tramill, & Lattin, 1999; Norman & Johnson, 2008). However, the interagency collaboration-related expectations remain unclear (Oertle, 2006; Oertle, 2009; Oertle, Trach, & Plotner, 2013).

Rehabilitation must take proactive position with regard to transition. Otherwise, the eventual entrance of students into the adult system will come with little preparation or the need to reconstruct student development. The Individualized Plan for Employment (IPE) is similar to the IEP and it seems that it should include many of those aspects if transition is really being conducted. This may not occur without some purposeful actions.

## INATTENTIVE TO EXPECTATIONS

The transition literature typically focuses on education, and the role of special educators. A lack of attention to the variety of expectations of those involved in the transition process results in a negative impact on interagency collaboration (Oertle, 2009; Oertle & Trach, 2007). Being responsive to the underlying expectations and the subsequent points of view intertwined in interagency collaborations is important but often missing or minimized as part of the transition planning process (Oertle, 2006, 2009; Oertle & Trach, in press). Consequently, rather than effectively utilizing the unique knowledge and skill sets of each professional there is often a lack of understanding and knowledge regarding what is expected. Thus, the core transition supports and services are likely duplicated, delayed, or omitted (Baer, Daviso, Queen, & Flexer, 2011; Norman & Johnson, 2008; Oertle & Trach, 2007, Oerle et al., 2013; Plotner et al., 2012). Professionals report being most unsure of youth and families' expectations or services needed (Oertle, 2006, 2009; Oertle et al., 2013). Nevertheless, we know that we can improve the outcomes of transitioning youth by working together in a coordinated, multidimensional collaborative, thus reducing duplication and maximizing limited transition resources (Oertle, 2009).

## COMMUNICATING AND CLARIFYING EXPECTATIONS

Creating and utilizing state and local infrastructures can have the power to formalize and monitor the implementation and maintenance of interagency agreements that specify expectations during collaborations (Norman & Johnson, 2008). Adding systematic mechanisms is an important start to provide the guiding framework and establish support but is meaningless alone. More than interagency agreements are needed. Collaboration needs to be humanized. Rehabilitation, special education, and the student and his family must have discussions more frequently than at school exit. This means that professionals at the local level who work with transitioning youth need to get to know each other outside of transition planning meetings and the transition process. In other words, their first and only meetings cannot be limited to sitting side by side at a transition planning meeting with a transitioning 16-year-old and his or her family. Trusting relationships need to be established independent of transition planning meetings in which ongoing and frequent communication is used to exchange information about what can be done with the knowledge, skills, and resources available. To create these relationships interactions must be expanded beyond formal transition planning and IEP team meetings.

## RUNNING EFFECTIVE MEETINGS

Once the overarching expectations for roles and responsibilities have been established, professionals must engage in effective meeting strategies to maximize expectations and safeguard collaborative relationships (Martin, 2005; Oertle & Trach, 2007). At the minimum, the transition planning or IEP team meetings should:

- Utilize written meeting agendas (that are set with the transitioning youth), sending the agendas out prior to the meeting, and requesting input
- Access student information prior to the meeting such as IEP with transition goals, strengths and support needs, and transition timelines
- Establish meeting procedural rules such as who will lead the meeting, how the discussion will take place, how disagreements will be handled, etc.
- Create a follow-up plan with specific expectations for responsibilities and timelines
- Set the meeting time and stick to it

When these basic elements are utilized for meeting management, the roles for participants are clarified. Furthermore, having more structured meetings increases transition participation (Martin, 2005; Oertle, 2006; Oertle, 2009; Oertle et al., 2013).

## PROVIDING PROFESSIONAL DEVELOPMENT AND TECHNICAL ASSISTANCE

Because of the complexity of interagency collaboration within the transition process, preservice and in-service professionals require transition explicit education along with technical assistance to be effective. Education specific to transition participation and collaboration is likely to improve interagency collaboration, consequently maximizing the support, services, and resources available to transitioning youth. Thus, an investment in training of this sort is vital for successful transition outcomes. The fact is that transition education must be strengthened to impact outcomes (Burr, 2011; Norman & Johnson, 2008; Oertle & Trach, 2007; Oertle et al., 2013; Plotner et al., 2012). While

professionals report learning about transition and collaborative strategies at conferences and workshops, many are left to on-the-job training as their primary source of professional development (Oertle, 2006, 2009). Given the confusion in the field regarding expectations and the dismal transition outcomes, it is evident that these types of training are not enough for improvement. Furthermore, education for preservice professionals can be limited to a few lectures on these topics or they must seek a specialized certificate, which requires making decisions about coursework, cost–benefits, and time to degree. Ideally, joint trainings focused on transition and interagency collaboration would be available to both preservice and in-service professionals with expectations for improved outcomes (Oertle & Trach, 2007).

## SUMMARY

The assumption that transition as a programmatic effort will just happen is not likely beyond the student aging out of services or separating from the public school for various reasons. Rehabilitation professionals have the best perspective on postschool environments, which they should convey to school personnel. They must identify common ground from which to proceed through a collaborative process. Collaborative common ground provides the most effective and efficient program for students. The alternative would be to wait for school separation to occur and then to proceed with some plan for employment. This scenario undeniably results in a waste of time, resources, and opportunities. Any effort at programming during school years is better than none. It will always need adjustment and realignment with each student. The goal must be to focus on that student and not a process that will be redefined each time.

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# *Chapter 23: Youth and Adults With Psychiatric Disabilities: Improving Career and Employment*

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***After reading this chapter, you should be able to:***

1. Understand the background and contextual issues affecting employment for youth and adults with psychiatric disabilities.
2. Identify the challenges to developing career plans and improving employment outcomes for each of these population.
3. Describe promising career- and employment-related program models and interventions for youth and adults with psychiatric disabilities.
4. Identify recommendations and implications for future practice.

It is well documented that youth and adults with mental health disabilities have poorer academic and employment outcomes than their peers without disabilities, as well as other groups of individuals with disabilities (e.g., National Longitudinal Transition Study (NLTS-2), 2010; President's New Freedom Commission on Mental Health (PCMH), 2003). For example, youth diagnosed with emotional disabilities (ED) are significantly more likely to drop out of high school, more likely to encounter the juvenile justice system, and less likely to be employed post high school than their peers without disabilities (Podmostko, 2007). Similarly, estimates of competitive employment for adults with psychiatric disabilities suggest that they are three to five times lower than among individuals without disabilities (Larson et al., 2011), with the President's New Freedom Commission on Mental Health (2003) reporting a 90% unemployment rate for this population. In addition, youth and adults with mental health disorders are among the fastest-growing group of recipients of federal Social Security disability programs (Linkins et al., 2011).

The progression of mental health disorders diagnosed in youth to having a diagnosed psychiatric disability in adulthood is complicated. Many youth with emotional or behavioral disorders in childhood and adolescence are labeled by the educational system as "emotionally disturbed or ED," a label that is recognized under the Individuals with Disabilities Education Improvement Act (IDEIA of 2004), but one that does not necessarily convey a mental health diagnosis sufficiently severe to warrant adults benefits and services from, for example, the federal vocational rehabilitation program, the Social Security Administration, and individual state mental health administrations (Podmostko, 2007). On the other hand, some adults with significant mental health disorders diagnosed after age 22 (such as schizophrenia or schizoaffective disorder) may not have been eligible for special education services during their youth, but would likely qualify for adults benefits based on the severity of their symptoms and its impact on functioning. It is not clear what percentage of youth who age out of the foster care, juvenile justice, and special education systems are served by adult mental health systems (Forness, Kavale, King, & Kasari, 1994; Forness, Kavale, & Lopez, 1993); however, nearly three-fourths of individuals with psychiatric disorders were originally diagnosed during adolescence (Kim-Cohen et al., 2003). Without proper linkages and opportunities for meaningful career development, these youth fall through the cracks and are at higher risk for negative adult outcomes.

It is clearly a complicated path to trace the progression of mental health disorders from childhood into adulthood, so for this chapter we view the specific status, challenges, and promising practices from the separate perspectives of youth and adults. At the end of the chapter, we summarize recommendations for practice drawn from the two sections. The objectives of this chapter are to (a) review the current vocational status of adults and youth with mental health disorders; (b) identify challenges to career and employment; (c) describe promising practices and programs; and (d) make recommendations for future research and practice.

## YOUTH WITH MENTAL HEALTH NEEDS

While the mental health system uses the categories and definitions of mental disorders found in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*, many psychiatric disorders are not diagnosed until adolescence or adulthood (Kim-Cohen et al., 2003). Still, 8.3 million school-aged childrens' (14.5%) parents have discussed their child's emotional or behavioral difficulties with a health care provider or school staff, and almost 2.9 million children have been prescribed medication for these difficulties (Simpson, Cohen, Pastor, & Reuben, 2008).

According to the definition in the Individuals with Disabilities Education Act of 2004, an emotional disturbance is "a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree, and which adversely affects educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with physical or school problems." Less than 1% (500,000) of students in the public schools receives services under the category of ED, far below most estimates of the percentage of children who have mental health needs (MHN) (Forness & Knitzer, 1992; Kauffman, 1997). In order to qualify for special education services, a child's disability must adversely impact educational performance. Youth who exhibit externalizing behaviors

(e.g., physical aggression, tantrums, disturbing others, oppositional behavior, and noncompliance) are more likely to be identified as having ED than those who exhibit internalizing behaviors (e.g., social withdrawal and isolation, low self-concept, and phobias).

It is important to understand the context within which youth with ED live and learn. Youth with ED are more likely to be male, African American, and living in impoverished single parent households with the head of household having no formal education past high school (Wagner & Cameto, 2004). In addition, many youth with ED as their primary disability is also reported to have attention deficit or attention deficit hyperactivity disorder (ADHD) or some other comorbid learning disability. Beyond demographic and socioeconomic status, youth with ED have other challenges to their academic and career development. As compared to other youth with disabilities, youth with ED begin receiving services at a later age, experience greater school mobility, get suspended or expelled more frequently, and have been held back at least one grade level (Wagner & Cameto, 2004). Outside of the classroom, youth with ED are often involved in school bullying or fighting and have the highest percentage of negative consequences for their actions (Podmostko, 2007). Youth with ED have the highest dropout rate (up to 50%) in comparison to other youth with disabilities (Wagner, Newman, Cameto, Levine, & Garza, 2006). Very few students with ED who graduate from high school go on to pursue postsecondary education (Wagner et al., 2006). Longitudinal data also indicate that youth with ED are less likely to work full-time, experience more gaps in their employment history, and earn less than individuals without disabilities and their peers with other disabilities after exiting school (Wagner et al., 2006). Because of the high rates of unemployment and underemployment, youth with ED have increased rates of dependence on public assistance (Podmostko, 2007). Youth with ED also have the highest rates of arrest and incarceration among youth with disabilities (Wagner et al., 2006). Recent studies indicate that between 65% and 100% of youth in the juvenile justice system had a diagnosable mental health disorder (National Center for Mental Health and Juvenile Justice, n.d.).

The disruptions to the academic, home lives, and social networks experienced by these at-risk youth negatively affect their ability to be successful in school. In terms of career development, these disruptions may have a significant impact on the typical experiences that help youth learn about themselves, their career interests, and potential occupations.

### Policy and Law

Career development opportunities for youth with disabilities, including those with ED, have evolved in response to legislation and policy in the fields of special education, general education, and vocational-technical education (Sitlington, Neubert, & Clark, 2010).

Although youth with disabilities have been guaranteed a "free and appropriate education" according to individualized education plans (IEPs) since the Education for All Handicapped Children Act was passed in 1975, career outcomes for youth with disabilities were not a priority until 1990 when the act was reauthorized and renamed the Individuals with Disabilities Education Act (IDEA). IDEA 1990 mandated transition planning as part of the IEP. Now known as the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), the law defines transition planning as a coordinated set of activities for a child with a disability that is: (a) designed within a results-oriented process; (b) focused on improving the academic and functional achievement of the child with a disability to *facilitate the child's movement from school to post-school activities*, including postsecondary education, vocational education, integrated employment (including supported employment), continuing and adult

education, adult services, independent living, or community participation; (c) based on the individual child's needs, taking into account the child's strengths, preferences, and interests; and includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and, if appropriate, acquisition of daily living skills and functional vocational evaluation (IDEIA 2004, p. 118). The 2004 amendments also introduced 20 indicators that special education programs must monitor, two of which specifically pertain to transition. Indicator 13 outlines specific transition service requirements and Indicator 14 requires districts to report on the percentage of students who age of out special education and reach their postsecondary goals.

While the intent of transition planning for youth with disabilities is clearly to ensure they are prepared for positive postsecondary outcomes, including employment, the educational experience of youth with ED is also significantly affected by the Elementary and Secondary Education Act, commonly referred to as No Child Left Behind (2001). The result of NCLB is a sizeable increase in the academic course requirements for youth with ED (including science, social studies, and foreign language) and an emphasis on "high stakes" accountability measures. This academically oriented shift has come at the cost of an emphasis on occupationally specific vocational education, which has been shown to contribute to higher rates of postsecondary vocational training and competitive employment for youth with ED (Wagner, Blackorby, Cameto, & Newman, 1993).

## *Barriers and Challenges to Career Development and Employment*

The field has amassed a great deal of information about the components of an effective transition program. In collaboration with the Office of Disability Employment Policy (ODEP), the National Collaborative on Workforce & Disability for Youth (NCWD) created a framework for transition planning called the *Guideposts for Success.* According to the guideposts, transition planning should include a focus on (a) school-based preparatory experiences; (b) career preparation and work-based learning experiences; (c) youth development and leadership; (d) connecting activities; and (e) family involvement and supports. Transition planning within this framework provides youth with opportunities to learn about themselves as well as potential careers through exposure to early career exploratory experiences, learning work-related skills, and developing decision-making abilities. Incorporating these five transition program components is often difficult for youth with mental health needs because of the disruptions to their education (e.g., suspensions), home lives (e.g., poverty), and social networks (e.g., school mobility). Each of these guideposts is discussed below.

### School-Based Preparatory Experiences

According to NCWD, youth with ED/MHD should participate in educational programs that include high standards, rigorous and engaging learning environments, highly qualified staff, and opportunities to develop self-awareness in educational and workplace settings (Podmostko, 2007). Recent studies indicate that youth with ED may not be receiving high-quality instruction; 44% of all high school courses youth with ED take are segregated special education classes and, on an average, 16% of youth with ED take all of their coursework in special education classes (Wagner & Cameto, 2004). With the shift toward academic rigor and "high stakes" testing in the

wake of NCLB, youth with disabilities, including those with ED, often do not have time in their school schedules to participate in early career exploratory experiences, including work-based learning (e.g., informational interviews, job tours, and unpaid internships).

### Career Preparation and Work-Based Learning Experiences

Work-based learning experiences include activities at the high school level that involve actual work experience or connect classroom learning to work (Luecking, 2009). Sitlington et al. (2010) summarized the major components of career education as (a) occupational awareness, (b) employment-related knowledge and skills, and (c) specific occupational knowledge and skills. In other words, youth need multiple career exploration experiences and hands-on opportunities to learn about the world of work. Numerous studies have identified work experiences, specifically including paid work, as a robust predictor of post-school employment (Simonsen & Neubert, 2013; Nuemark & Rothstein, 2006; Creed, Patton, & Prideaux, 2007). Work-based learning can occur through career and technical education (CTE, formerly vocational education) or other models of cooperative education, student internships, apprenticeships, or school-based enterprises. Unfortunately, youth with ED take fewer CTE classes than their peers (Wagner & Cameto, 2004). These students may also be struggling with their academic coursework and dealing with a myriad of other challenges (including homelessness, episodic psychiatric disorders, medication effects, or lack of family support). As such, opportunities to participate in meaningful work-based learning may be limited (Loprest & Maag, 2007).

### Youth Development and Leadership

The *Guideposts* suggest that youth have meaningful opportunities to develop self-determination skills, including self-advocacy, decision making and choice, and self-management. A key component of self-determination is self-efficacy beliefs, or a sense of personal agency (Lent, Brown, & Hackett, 1994). Findings from numerous studies of youth and adults with ED/MHN indicate that there is a strong correlation between self-efficacy beliefs and post-school employment outcomes (Mowbray, Bybee, Harris, & McCrohan, 1995; Ochs & Roessler, 2001) and yet youth with learning disabilities and ED have lower efficacy beliefs than their peers (Ochs & Roessler, 2001).

### Connecting Activities

Youth with ED are often involved with various other service systems, including child welfare, mental health, and juvenile justice. The eligibility requirements, funding mechanisms, participation requirements, timelines, vocabulary, acronyms, and paperwork vary significantly across the systems. A consistent component of the policy and recommended best practices is the emphasis on interagency collaboration; however, these services are rarely coordinated and youth frequently "fall through the cracks" as they age out of various systems (National Collaborative on Workforce & Disability for Youth, 2007). The process of navigating the various systems requires knowledge and fortitude. Youth with ED may be at a disadvantage because of the other compounding factors (e.g., poverty, school mobility, and limited family support).

### Family Involvement and Supports

Family members can serve as role models and provide logistical and moral supports (Simonsen, 2010; Dixon & Reddacliff, 2001) to youth. For example, family members often expose their children to career fields, help identify potential volunteer or work opportunities in the community, and help in transporting the children to those activities. As previously described in this chapter, youth with ED disproportionately live in poverty, and reside in one-parent households with limited educational levels. In addition to these demographic factors, family engagement in transition planning for youth with ED is likely impacted by the families' early experiences with service systems (Wagner et al., 2006). In a recent examination of two longitudinal studies, the Special Education Elementary Longitudinal Study (SEELS) and the National Longitudinal Transition Study-2 (NLTS2), Wagner et al. (2006) found that parents of students with ED were significantly more likely to express dissatisfaction with their children's schools, teachers, and special education services (Wagner et al., 2006). This disconnection with the schools extended to parental involvement. Parents of youth with ED were less likely to volunteer at the school and attend school events and more likely to pursue mediation and due process hearings. As youth with ED age, their families are increasingly less likely to attend parent–teacher conferences (Wagner et al., 2006). The disengagement of families from school-based transition planning creates a significant barrier to ensuring that youth with ED are engaged in activities that will prepare them for employment.

## *Promising Models and Practices*

In order to address the unique challenges and barriers to healthy career development and employment outcomes for this population, it is essential that transition planning emphasizes individualized/flexible interventions, staff competency, and service collaboration. We briefly describe three promising service delivery models for transition-age youth with ED/MHN that incorporate those strategies.

### The Systems of Care Model

The systems of care (SOC) model represents an approach rather than a model of collaborative transition planning. The concept of a "system of care" provides a "wrap around" framework for children's mental health reform that encourages the braiding or blending of funding and resources from various local, state, and federal agencies (e.g., special education, rehabilitation, and Social Security). A first step in developing a SOC is to conduct resource mapping with stakeholders across eight domains: (a) mental health, (b) social services, (c) education, (d) health, (e) substance abuse, (f) vocational, (g) recreational, and (h) operational services. By mapping out services and resources, the SOC team can identify gaps and work collaboratively to address them. Participants in SOC must be willing to develop common goals and work within a shared infrastructure to ensure youth have access to meaningful transition services (Podmostko, 2007).

### Transition to Independence Process

This evidenced-based practice model engages youth, their families, and other key players in a highly individualized transition planning process. The transition personnel who are responsible for implementing the model participate in competency-based

training and work with small caseloads. The model is based on seven guidelines: (a) engaging young people through relationship development, person-centered planning, and a focus on their futures; (b) providing tailored supports that are accessible, coordinated, and developmentally appropriate; (c) ensuring a safety net of support by involving a young person's parents, family members, and other informal and formal key players; (d) focusing on acknowledging and developing personal choice and social responsibility with youth people; (e) enhancing a person's competencies; (f) maintaining an outcome focus; (g) and involving young people, parents, and other community partners in the transition to independence process (TIP) system at the practice, program, and community levels (Clark & Unruh, 2009).

#### Rehabilitation, Empowerment, Natural Supports, Education, and Work

Rehabilitation, empowerment, natural supports, education, and work (RENEW) is an individualized community-based approach that is based on five principles: (a) self-determination; (b) community inclusion; (c) unconditional care; (d) strengths-based services; and (e) flexible resources. RENEW facilitators serve as case managers and work with each participant to identify strengths, needs, interests, and goals. Youth participants are supported to develop highly individualized outcome-oriented plans. The RENEW facilitator helps to identify individualized and flexible opportunities for the youth. The facilitator brokers access to various to a variety of programs and resources in the community (e.g., GED program).

## ADULTS WITH PSYCHIATRIC DISABILITIES

Estimates are that there are about 5.6 million adults who experience sufficient severity, duration, and functional impact of their psychiatric illnesses to warrant classification as a psychiatric disability (PCMH, 2003). Criteria for meeting this standard and subsequently being eligible for a variety of state and federally funded programs requires three conditions: (a) an Axes I diagnoses (according to the *DSM-IV-TR*); (b) sufficient duration of illness; and (c) functional impact. As indicated earlier in the chapter, those 5.6 million adults who meet these criteria have poor patterns of employment, low socioeconomic status, multiple related health and mental health problems, and increased likelihood of receiving federal disability benefits.

### *Policy and Law*

Prior to the Community Mental Health Center Acts of 1963, most adults with psychiatric disabilities were confined to institutional settings or state hospitals. With the advent of community-based approaches to treatment and rehabilitation, promising new program and practices were developed with the goals of sustaining people in their communities and improving their quality of life through social and vocational inclusion. One of the first models designed to maintain community participation was psychosocial rehabilitation programs, developed in the 1950s and proliferating through the 1970s. First located in predominantly urban areas, such as New York City, these psychosocial rehabilitation programs offered intensive social and peer support, assistance with finding jobs and job training opportunities, and opportunities for

social and recreational activities (Pratt, Gill, Barrett, & Roberts, 2007). A major emphasis of these programs was the idea of "member ownership" and empowerment. While the early evidence of the effectiveness of such programs in sustaining community living and improving access to peer networks was positive (Pratt et al., 2006), there was little evidence that psychosocial "members" were achieving vocational goals, such as identifying career interests and finding and maintaining competitive jobs (Drake et al., 1994). National employment data for individuals with disabilities, as well as expanded federal funding, intensified the need to devise vocationally oriented rehabilitative approaches to assist adults with psychiatric disabilities to choose, find, and maintain jobs in the community.

Federal funding and renewed interest in improving the national employment picture for adults with psychiatric disabilities precipitated major policy and legislative initiatives from the 1970s through the 1990s related to employment. The most significant included (a) collaborative agreements between federal, state, and local vocational rehabilitation and mental health agencies and programs; (b) shifting the emphasis in job development and placement from a train and place to place and train approach; and (c) an evidence-based employment intervention.

Recognition that individuals with significant mental health disorders required integrated mental health and vocational rehabilitation services was codified in the 1980 collaborative agreement between the National Institutes on Mental Health and the Rehabilitation Services Administration. The agreement fostered state and local recognition of integrated services plans, and eventually led to innovative service approaches such as Assertive Community Treatment (McFarlane et al., 2000), and the Individual Placement and Support model of supported employment (Drake, Becker, Biesanz, Wyzik, & Torrey, 1996).

A second policy imitative that prompted innovative practice in the field was the inclusion of individuals with psychiatric disabilities in the 1986 Amendments to the Rehabilitation Act of 1973 regarding supported employment (Fabian & Weidefeld, 1989). At this point, supported employment, with its emphasis on rapid job placement and place and train approaches, represented a dramatic fairly shift from training individuals in sheltered facilities until they were ready to be placed into jobs, an approach that had not yielded much movement into competitive employment for this population. While there were some notable reports of employment success for supported employment programs (Drake & Bond, 2008), during the 1990s, spurred by federal NIMH funds, a modification to supported employment, called the individual placement and support approach, which more formally integrated mental health and vocational supports into a supported employment approach, emerged. This approach is described later in the chapter.

### *Barriers and Challenges to Career and Employment*

Although adults with psychiatric disabilities have among the lowest competitive employment rates reported when compared to other groups of disabled adults (PCMH, 2003), there is sufficient evidence that work confers significant benefit to the population. For example, work is associated with higher quality of life (Lehman et al., 2002; Lloyd, King, & Moore, 2010), it enhances recovery from mental illnesses (Baron, 1995; O'Day, Killeen, & Goldberg, 2006), and can boost self-efficacy beliefs and resilience (Waghorn, Chant, & King, 2005a). Moreover, surveys of the population of individuals with psychiatric disabilities report that they indicate a desire to work (McQuilken et al., 2003), while acknowledging that vital supports, such as access to health care, supportive networks

both within and out of the workplace, and reasonable workplace accommodations are critical to sustain it. A discussion of factors that facilitate employment occurs in the next section; this section examines the persisting employment challenges to the population, namely (a) health and disability issues, (b) stereotypes and stigma, and (c) structural challenges.

### Health and Disability Issues

A substantial body of research has examined person factors influencing employment acquisition and tenure for people with psychiatric disabilities. While results have been somewhat equivocal, a few significant work-related factors have emerged. Interestingly, there has not been substantial support for the effect of overall mental health severity on employment outcomes for this population, although there is growing evidence that negative symptoms of the illness, particularly those associated with schizophrenia spectrum disorders, significantly impact work motivation and retention (McGurk & Mueser, 2003; Wewiorski & Fabian, 2004). Negative symptoms affect interpersonal and social skills, which can also depress the likelihood of achieving competitive employment. Here, however, the individual placement and support model (IPS) has demonstrated the mitigating impact of intensive mental health and social supports on sustaining employment even for those with the most severe symptoms of mental illness (Cook et al., 2008).

Another diagnostic feature that depresses employment for this population is co-occurring disorders, particularly substance use and abuse. This complex diagnostic picture has presented substantial barriers to work, as individuals with co-occurring disorder frequently encounter problems receiving adequate treatment (Brown, Ridgely, Peppe, Levine, & Ryglewicz, 1989).

The intermittent course of many psychiatric conditions is another disability-related factor influencing employment. When coupled with the effects of medication, individuals who experience high remitting/relapsing patterns may exhibit particular difficulties in job retention (McGurk & Mueser, 2003).

### Stigma and Negative Attitudes

One significant impediment to employment for adults with psychiatric disabilities remains negative employer attitudes (Russinova, Griffin, Bloch, Eweiorski, & Rosokliga, 2011). Studies have found that people with psychiatric disabilities encounter workplace discrimination in all phases of the employment process; that is, applying, securing, and maintaining a job (Corbiere et al., 2011). The threat of employment discrimination arguably impedes vocational performance as job applicants and employees with disabilities are reluctant to reveal their condition in order to seek workplace accommodations under the Americans with Disabilities Act (ADA) (MacDonald-Wilson, Fabian, & Dong, 2008).

Several studies have explored employer stereotypes regarding psychiatric disabilities which contribute to their reluctance to hire or retain individuals who disclose their illnesses, and these include their perceptions that people with mental illnesses are potentially violent, dangerous, unintelligent, unreasonable, unreliable, and lacking self-control (Crisp, Gelder, Rix, Meltzer, & Rowland, 2000). While recent efforts to combat negative stereotypes have reported some success, the entrenched nature of negative stereotypes and perceptions remains a significant challenge in employment.

### Structural and Contextual Barriers

Researchers describe other contextual variables that affect employment outcomes for this population. One of the most challenging is Social Security disability benefits, either Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI). While the cash benefits from these programs vary, they each offer access to federal medical insurance programs (Medicare or Medicaid), a substantial benefit to people with psychiatric disabilities in terms of covering the cost of health and mental health care, medications, and even hospitalization. Numerous modifications to federal Social Security regulations have been enacted to address the inherent work disincentives in these benefits programs, but studies still suggest fear of losing benefits reduce the likelihood of employment for this population (Linkins et al., 2011).

Another structural barrier is the lack of adequate vocational rehabilitation services and supports for this population. The primary funding sources for employment services for individuals with psychiatric disabilities are either federal–state vocational rehabilitation agencies or various Medicaid-based waiver programs supporting community services for targeted populations (West et al., 1997). The public vocational rehabilitation program generally closes cases within 90 days after job placement, a system feature that militates against the provision of critical long-term ongoing supports for this population. While combinations of state and federal Medicaid funding can support long-term vocational support (such as supported employment services), few individuals who qualify for Medicaid community-waiver benefits are receiving any vocational services at all (O'Day et al., 2006). Of course, many people with severe mental health disorders work successfully, and never receive public vocational services, but less is known about the recovery patterns for these individuals or their access to unique sources of services and supports (family, community, mental health, and peers) to promote and sustain employment or careers.

## *Promising Models and Practices*

There are several examples of promising programs and practices to address some of the entrenched employment barriers identified in the previous section. In this section, we briefly review some of the most recent, including the "recovery model" of psychiatric disabilities, strengthening work incentives, and the individual placement and support model of supported employment.

### Recovery Model

The recovery model of psychiatric disabilities can be traced to the evolution of psychosocial clubhouse programs described earlier in the chapter, and what has been described as the "civil rights model" of disability, where the focus is on mitigating environmental barriers rather than treating individual deficits. Individuals do not necessarily recover from their mental illness, rather the focus is on improving insight and capacity to cope with it in order to find meaning and well-being (Deegan, 1993). The theoretical basis for this approach is self-determination and choice, and the practical focus is on developing self-management, self-advocacy, and self-awareness skills sufficient to exert informed choice and live meaningful lives in the community. The preferred service delivery approach is the recovery model is relying on peer practices,

such as mentoring, support, skills training, and advocacy (Castelein et al., 2008). The outcome is empowering people with severe mental illness to "reclaim their rights to a safe, dignified and personally meaningful and gratifying life in the community while continuing to have mental illness" (Davidson & Roe, 2007, p. 464). One of the elements of recovery is work, as it can confer social, financial, and psychological benefits (Blustein, 2008). Within a recovery-oriented framework, employment is individually determined, defined, and pursued, not defined by others as an outcome of treatment. In other words, job success is not measured in terms of how long or how much is earned, but rather whether it is an individual choice and whether it contributes to an individual's well-being.

### Focus on Work Incentives

Consistent with a recovery orientation is a focus on work incentive strategies or the individual benefits accruing from work (Larson et al., 2011). This approach has its roots in the psychology of work, as it shifts the emphasis from the consideration of personal or environmental impediments to positive forces that motivate change or engagement. Work incentive strategies are related to vocational theories that focus on instilling a future orientation or a focus on hope (Fabian, 1999). While the research in psychiatric disabilities and employment has explored individual factors contributing to positive outcomes, such as self-efficacy beliefs (Waghorn et al., 2005a), there has been very little empirical study focusing on improving individual outcome expectations regarding positive results of employment. Larson et al. (2011) suggest motivational interviewing, and some of the strategies associated with self-determination or self-advocacy training might be helpful as well. Given the lack of attention to the motivating influence of career goals on performance outcomes, goal-training strategies might also be an important practice.

### Individual Placement and Support Model

Several vocational program models have been described that incorporate recovery, choice, and self-determination, including assertive community treatment (McFarlane et al., 2000), and the individual placement and support model of supported employment. Both approaches embody the philosophies of recovery, and the IPS integrates clinical and vocational services in order to support and sustain employment (Drake & Bond, 2008). However, there have been some disparate findings regarding job retention under the IPS model (Drake & Bond), suggesting that the neglect of key elements of career development and the recovery model, such as informed choice and self-determination, need to be foundational elements of any type of employment program intervention (Campbell, Bond, & Drake, 2009).

## SUMMARY AND RECOMMENDATIONS

Youth with ED/MHN and adults with psychiatric disabilities encounter significant challenges in achieving quality employment in the community. Some of the similar challenges include demographic and disability-related factors, paradoxical federal policies and laws, and programmatic models and practices that are, at best, unevenly

available and accessible. While each of these groups has unique needs, we conclude this chapter with some overarching recommendations that can be tailored to address the unique configurations of state and local resources and regulations.

1. *Early intervention*. Although not all youth with ED/MHN progress to adulthood with significant mental health disabilities, a substantial proportion of youth either are at risk for adult disorders or can still benefit from early intervention services and practices which can reduce the future risk. These early intervention/risk reduction strategies are incorporated into the *Guideposts for Success*, as well as other promising practices that emphasize the importance of pre-vocational experiences, identification of career goals, and improving work-related self-efficacy beliefs through paid employment experiences.
2. *Collaborative systems*. The likelihood of achieving better vocational outcomes for both youth and adults with mental health disorders is improved through collaborative systems of care. For youth, these wrap-around services incorporate academic, social, and mental health services at a minimum. For adults, minimum services include intensive rehabilitation and mental health intervention. There are numerous examples throughout the literature (see some of the references in this chapter) for implementing some of the strategies associated with these types of programs.
3. *Self-determination and choice*. For both youth and adults with mental health disorders, self-determination or self-efficacy beliefs positively influence work motivation and employment outcomes. Significantly, these theoretical constructs can be directly modified through well-described strategies and methods, some presented in this chapter, and some described in Chapter 7 of this book. Incorporating theory-based strategies to improve and sustain work motivation facilitate replication and dissemination of best practices for youth with ED and adults with psychiatric disabilities.

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# *Chapter 24: Career Development and Employment for Persons With Physical Disabilities*

*WENDY CODUTI, MICHAEL J. LEAHY, AND SUPARNA ROY*

***After reading this chapter, you should be able to:***

1. Recognize employment issues related to people with physical disabilities.
2. Understand human capital theory and the dualistic theory of labor markets.
3. Recognize how education affects lifetime earnings and employability.
4. Comprehend the impact of the Great Recession.
5. Be familiar with successful employment strategies for people with physical disabilities.

People with physical disabilities have been served through the public rehabilitation program in this country since that program's inception back in 1920 with the passage of the Smith–Fess Act. The ultimate aim of these federal- and state-level vocational rehabilitation policies and programs has been to assist individuals with disabilities gain competitive employment consistent with their abilities and interests. Over the years, with advances in medicine and technology, the number of individuals requiring services and severity and complexity of these types of cases has dramatically increased. Today, people with physical disabilities are served in the public, nonprofit community-based programs, and in the private sector. People with physical disabilities represent a highly heterogeneous population. What this population has in common are the obstacles encountered in obtaining meaningful employment and participation in their communities. These obstacles include, but are not limited to, scarce resources for rehabilitation and training services, and negative and stereotypic perspectives from employers and the general public that tend to devalue the person with the disability and lower expectations in terms of employment potential and contributions to the community.

For those persons with physical disabilities that are in need of services in relation to career development and employment, there are at least three factors that affect the extent of the vocational handicap that include (1) physical capacities, (2) acquired vocational skills and skill acquisition potential, and (3) psychological functioning (Rubin & Roessler, 2008). More recently, with the application of the biopsychosocial model of disability, we have seen the importance and emphasis on the interaction of the environment with the individual with a disability as one of the key components (Chan, Strauser, Gervey, & Lee, 2010) in addition to the factors that Rubin and Roessler discuss that has a direct impact on needed services, employability, and job satisfaction.

Throughout the modern history of rehabilitation, there have been some extraordinary milestones achieved in terms of civil rights, accessibility, and assistive technology that have directly impacted the lives of people with significant physical disabilities. Unfortunately, although progress has been made, people with disabilities, including those with physical disabilities, are still, for the most part, unemployed, underemployed, or not connected to the labor market with a participation rate of 32.1% as compared to 77.7% for those working-age adults without disabilities (Yelin & Trupin 2003; Houtenville, Stapleton, D., Weathers, R., & Burkhauser, 2009).

## EMPLOYMENT AND PEOPLE WITH PHYSICAL DISABILITIES

"Work is a central aspect of human life" (Szymanski & Parker, 2010, p. 1) and levels of life satisfaction for people with physical disabilities are directly influenced by their employment status (Kinney & Coyle, 1992). In the year 2010, an estimated 5.1% of civilian, noninstitutionalized, men and women, aged 18 to 64 in the United States reported an ambulatory disability yet only an estimated 24.7% of those individuals were employed, compared with 73% of individuals aged 18 to 64 without a disability (Erickson, Lee, & von Schrader, 2012). The American Community Survey (ACS), where these data were obtained, includes questions related to ambulatory difficulties to include, "Does this person have serious difficulty walking or climbing stairs" (Brault, 2009, p. 7). Brault (2009) states the physical domain "contains a wide range of limitations, but generally relates to respiratory, metabolic, and musculoskeletal body functions associated with movement" (p. 7).

People with disabilities not only face higher unemployment rates, they also earn less than their nondisabled counterparts. Klayman, Mochel, Hale, and Belson (2009) report that the median income for families with at least one member with a disability was 67.8% ($36,950) of the national average ($54,515). Decreased wages are not the only repercussion of having a physical disability. Turner and Turner (2004) report "persons with physical disability who are also involuntarily unemployed are at approximately double jeopardy for depression" (p. 247).

As shown above, having a physical disability often means higher unemployment and lower earnings, compared to those without a disability. Yet, compared with other types of disabilities, physical disabilities often have less stigma attached. McLaughlin, Bell, and Stringer (2004) state there is a higher negative reaction to people with addictions than those with a sensory impairment, who in turn are viewed more negatively than people with a physical disability. However, physical disabilities are visible and not easily hidden during the job search. During interviews, people with physical disabilities often cannot mask their disability and may find themselves spending valuable time defending their deficits rather than highlighting their qualifications and abilities (Strom & Ferris, 1982). Employers though expressed more apprehension about hiring

people with mental and/or emotional disabilities than hiring someone with a physical disability (Unger, 2002). In a recent survey of 100 employers from Beijing, Hong Kong, and Chicago, individuals with psychiatric disabilities were less likely to be hired compared to individuals with physical disabilities (Corrigan et al., 2008). However, Chan et al. (2010) reported that in professions where there was a high demand and low supply of qualified workers, employers are "less risk averse" (p. 408), meaning preparing people with disabilities for these in demand occupations will increase their opportunities for employment (demand-side job placement).

Understanding opportunities and challenges for people with physical disabilities and their ability to gain employment depends upon many factors, including knowledge of specific career theories, labor markets, changes in the world of work and how individuals with disabilities function in different environments. This chapter will look at those factors, specifically related to the U.S. labor market becoming more fluid (Farber, 2005) and the economy's structural transformation from blue collar manufacturing to the "explosion of the service sector" (Ormiston, 2006a, p. 3). While the expansion of the service sector may offers more employment opportunities specifically for people with physical disabilities, many of these service jobs offer low pay, low status, and little chance for upward mobility (Yelin, 1992). We will also discuss how education increases earning opportunities as well as specific strategies for job seekers, including recruiting trends of employers in postsecondary education settings and social networking as tools in the job search.

## HISTORY OF CAREER COUNSELING

Career counseling is an essential service offered to people with disabilities (Szymanski, Willmering, Tschopp, Tansey, & Mizelle, 2004) and dates back over a hundred years to Frank Parsons, the founder of vocational psychology (O'Brien, 2001). Frank Parsons had the first documented career counseling program in 1909 where he also developed a three-step process for selecting a vocation, including "(a) gaining information about the person, (b) gaining information about the world of work, and (c) matching these two to arrive at an appropriate occupation for that person" (Szymanski, Enright, Hershenson, & Ettinger, 2003, p. 92).

Injured veterans returning from World War I led to the formation of the first U.S. federal vocational rehabilitation program for people with disabilities, the Soldiers Rehabilitation Act of 1918 (Rubin & Roessler, 2008). Often, these injuries were physical in nature and inhibited veteran's opportunities for employment. Career counseling in vocational rehabilitation can be traced to this Act as it "mandated vocational education, vocational guidance, occupational adjustment, and placement services" (Stensrud & Gilbride, 2004, p. 218).

Many of the career development theories practiced and taught today were developed in the 1950s and 1960s (Kerka, 1998). Employment during those times, both in relation to employers' perspectives, obligations, and perceptions are quite different than they are today. Employees also had vastly disparate views of employers and employment than they do now. Organizations have changed as well and are now "flatter and team-based and the emphasis is on flexibility, productivity, and workplace socialization skills" (Chan et al., 2010, p. 408).

Career development theories have been grouped in a variety of ways. The most common, however, is describing these theories in relation to trait-and-factor, life span, and social cognitive properties. Trait and factor (Holland) proclaims that unique traits can be reliably measured and it is possible to match individual traits to occupational

requirements (Holland, 1985; Kerka, 1998; Sharf, 2002; Szymanski & Parker, 2010). Life span theories such as Super's take a long-term, developmental perspective and state that individuals go through stages of vocational development which involve developmental tasks at each stage (Kerka, 1998; Sharf, 2002; Super, 1990; Szymanski & Parker, 2010). Finally, social cognitive theories discuss how personal attributes, external environmental factors, and behavior all interact with career decision making (Kerka, 1998; Lent, 2005).

## HUMAN CAPITAL THEORY

The human capital theory is the primary economic theory related to career development and was developed by Schultz (1960) and Becker (1962) (Sharf, 2002). Under this theory, it is postulated that individuals invest in their own education and training in order to achieve higher-paying jobs with more prestige (Ormiston, 2006b). Career earnings are described as a function of ability, education, and training, combined with the effort to produce effectively (Sharda, 1998).

Human capital theory was created in response to occupation-specific analyses and was designed to examine the role of education on wage variation in an effort to explain the policies needed for economic growth (Ormiston, 2006b). This has led to the human capital theory being the foundation for building educational initiatives, such as determining which initiatives will land the largest return on investment in the way of education leading to career attainment.

Even though the human capital provides a framework to identify effects of individual self-investment on labor market outcomes (Ormiston, 2006a), there are criticisms of this theory that need to be understood. Unfortunately, the wage model assumes equilibrium between variables and does not illuminate additional areas where disability may affect wage earnings, such as societal attitudes toward people with disabilities and the effects on career development and employment opportunities.

Additionally, the goal in human capital theory is monetary reward and assumes that labor markets are open equally to all workers (Sharf, 2002). For people with disabilities, we know this is not true. There are multiple barriers that may be apparent in the labor market for people with disabilities that are not there for others. Human capital theory does not address those issues and this theory does not consider job discrimination in predicting individual earnings (Sharf, 2002).

## PRIMARY AND SECONDARY LABOR MARKETS

Criticisms of the human capital theory led to the development of the dualistic theory of labor markets, also known as the primary and secondary labor markets (Sharf, 2002). Although the concept of investigating primary and secondary labor markets in relation to people with disabilities is not new to the literature of rehabilitation counseling, there are trends in the labor market which may have a significant impact and should be discussed.

Primary labor market workers have been identified as those that have higher wages, fringe benefits, satisfactory working conditions, and employment security (Hagner, 2000). These workers have more equitable workplace policies and receive raises and promotions. Hagner (2000) also states that primary labor market workers have the ability to move to more desirable jobs with other companies as their skills and knowledge increases. They also have some degree of worker autonomy.

Secondary labor market workers on the other hand endure low wages, minimal or nonexistent benefits, and less desirable working conditions, and face the likelihood of layoffs and periods of unemployment (Hagner, 2000). Supervision styles for secondary labor market workers are usually more harsh and subjective, as are work rules. There is seldom the experience of autonomy for these workers and the turnover rate for these jobs is high. Hagner (2000) describes these jobs as being concentrated in the least prestigious occupations within the economy and often fall under the description of being "food and filth" jobs. A study conducted in 1997 found that the top five occupations held by successfully rehabilitated individuals of all disability types achieving competitive employment through state–federal vocational rehabilitation ($n$ = 103,417) included janitor, chef/cook, attendant, porter/cleaner, and kitchen worker (Hagner, 2000). All of those jobs fall under the category of secondary labor market occupations.

The problem with the secondary market is that workers in this category are less likely to profit on education obtained, as discussed previously in regard to the wage model (Hagner, 2000). With ethnicity and geographical variables, controlled wages were found to be about 20% higher for a given level of education in the primary sector. Also, there was a positive linear relationship between the level of education and the level of earnings in the primary sector. Hagner (2000) explains that in the secondary labor market, the wage levels were mostly independent of education levels with the exception of those few who had very high levels of education. Additional complications resulting from working in the secondary labor market include having a higher risk of injury and job loss. Workers are also less likely to transition into the primary sector occupations the longer they remain in the secondary sector (Hagner, 2000). However, with the recent economic challenges and recession, education does offer more employment stability, which will be discussed below.

## EDUCATION AND EARNINGS

The U.S. economy is increasing the number of jobs that do not require physical ability (Inge, Strobel, Wehman, Todd, & Targett, 2000); however, this does not mean that people with physical disabilities have more opportunity for these positions. Ormiston (2006a) states that as of January 2006, manufacturing employment in the United States was at its lowest level since the Bureau of Labor Statistics started tracking data in 1939, due in part to a decrease of 2.8 million manufacturing jobs between 2001 and 2003. These displaced workers lead to direct competition for people with disabilities seeking employment and are a small number compared with job loss after the recent Great Recession of 2007–2009.

Education affects an individual's ability to find employment, especially after becoming unemployed from a previous job. Farber (2005) reports that individuals that are more educated, upon losing their job, have higher postdisplacement employment rates and are more likely to be employed full time. Those less educated have increased job loss rates and there is a "strong cyclical patterns in job loss rates for less educated workers, but cyclical patter is weaker for more educated workers" (Farber, 2005, p. 15). DeLoach (1992) found that education was a vital factor, particularly for people with physical disabilities in attaining better employment positions and Pfeiffer (1991) reports education levels are strong predictors of employment.

Fortunately, a greater number of people with disabilities are pursuing education (Stumbo, Martin, & Hedrick, 2009) and postsecondary education is significantly related to an increase in earnings (Cook, 2006). For example, a bachelor's degree over a lifetime

is expected to earn an individual 84% more than those with a high school diploma (Carnevale, Rose, & Cheah, 2011). Education, regardless of level, is important to wage-earning capacity. Obtaining a high school diploma can earn a person 33% more over a lifetime and can increase wage-earning capacity even within the same occupation, such as truck drivers with a high school diploma who earn on average $1.5 million over a lifetime compared with truck drivers without a high school diploma who earn $1.3 million (Carnevale et al., 2011).

Regardless of education level, the changing world of work is requiring people to be more responsible for their own employment security. Friedman (2005) states that for lifetime employability, the "individual worker is going to become more and more responsible for managing their own career, risk and economic security" (p. 284). For people with disabilities, this might not be as easy as it is for their nondisabled peers. There are many issues that inhibit employment opportunities for people with disabilities and their will to work is not always enough. In order to change the outcome, we need to understand forces challenging employment for all.

## IMPACT OF THE GREAT RECESSION

Labor markets are key components of career development both for people with disabilities and for those without. In today's dynamic employment environment, the labor market seems to change on a daily basis. Carnevale et al. (2011) explain that "our traditional understanding of career mobility is from an industry perspective: you work your way up from the mail room to the corner office" and this is a "relic of an earlier time—today careers are based on occupation" (p. 2). Workers will have to be adaptable to the changing market, including the downturn of jobs brought on by the Great Recession.

The Great Recession (2007–2009) included a job loss in the United States of 5.013 million wage and salary jobs and "job losses in the current recession are the largest ever experienced in the post–World War II era and to date are already 4.5 times as high as they were on average in the prior ten recessions" (Sum, Khatiwada, & McLauglin, 2009, p. 3). The Center on Budget and Policy Priorities (2013) reports that at the beginning of the Great Recession recovery, end of 2009, there were seven people for every one job opening and as of June 2013, 11.8 million workers were unemployed, and there were only 3.8 million jobs available. Even if all of those 3.8 million jobs were filled by people seeking employment, there would still be two out of every three persons still unemployed.

Individuals with disabilities were hit hard by the Great Recession. Fogg, Harrington, and McMahon (2010) report that during the Great Recession, unemployment rates for people who dropped out of high school and had a disability were 1.4 times higher than for those individuals who dropped out of high school and did not have a disability. The timeframe for finding a job during the Great Recession was also longer for those with a disability. The length of continuous unemployment for people with disabilities was 20% longer (25 weeks) when compared to people without disabilities (20.9 weeks) (Fogg et al., 2010). As discussed previously, education is an important factor in job security, earning potential, and reemployment. During the Great Recession however, individuals with disabilities who had more education did not have the same level of protection against unemployment as their peers without disabilities (Fogg et al., 2010).

Unemployment is not the only issue brought on by the Great Recession making finding employment challenging. Underemployment, or working part-time for economic reasons when a person is available and wants to work full time, is another (Sum,

Khatiwada, & Palma, 2010). Sum et al. (2010) report during the fourth quarter of 2007, the average monthly number of underemployed workers (not seasonally adjusted) was 4.389 million and by the fourth quarter of 2009, the average was 8.907 million, which is a record high.

The level of educational attainment is also a factor in underemployment. Sum et al. (2010) state that "nearly 1 of every 6 employed high school dropouts was underemployed during the fourth quarter of 2009" which "fell by nearly half for high school graduates, to 3.5% for employed bachelor degree holders and to a low of 2.2% for those with a Master's or higher academic degree" (p. 4). Overall, high school dropouts were between 7 and 8 times as likely to be underemployed when compared to the best educated adults employed (Sum et al., 2010). Individuals who are underemployed are also a competitor of people with physical disabilities seeking employment.

Decrease in overall number of jobs, competition for current positions, and underemployment are not the only challenge facing people with physical disabilities. The job search is becoming more commonplace as in any point in time, half of all new jobs acquired end within the first year and 20% of workers have been with their current employer less than one year (Farber, 1999). For individuals with disabilities this means there no longer is one job with one employer over a lifetime, but instead multiple jobs with multiple employers throughout a person's lifetime. Learning how to find a job, and knowing where to look is a critical skill to ensure lifetime employability.

The type of work available for all Americans, not just people with disabilities, has undergone significant transformations over the decades. From 2003 to 2004, more than 55% of the hiring in America was at the $13.25 per hour level or less. Most of these were hotel and restaurant workers, health care employees, and temporary workers (Uchitelle, 2006). All of these are in the secondary market and the trend is not likely to cease. Uchitelle (2006) illustrates that 7 out of 10 occupations expected to grow the fastest between 2002 and 2012 falls below the $13.25 per hour wage level. The occupations expected to grow the fastest are also all in the secondary labor market and include retail salespeople, customer service representatives, food service workers, cashiers, janitors, nurses' aids, and hospital orderlies. Positions in the secondary labor market run a high risk of underemployment. Sum et al. (2010) reported that people working in occupations of grounds cleaners, food preparation/serving, and construction and extraction occupations experienced 8 to 9 percentage points in their underemployment rates from 2007 to 2009.

A snapshot of the nation's workforce in 2004 is discouraging. According to Uchitelle (2006) more than 45% of the U.S. workers, regardless of their skills, earned less than $13.25 per hour, or $27,600 for the year working full time. That is the same income a family of four must have in many parts of the country to maintain a standard of living minimally above the poverty line. Uchitelle (2006) points out though that it is not just the lack of skill or lack of education of workers that is holding down the wages of nearly half the workforce in America. Instead an oversupply of workers is driving people into jobs beneath their skills and driving down the pay of jobs equal to their skills, another form of underemployment.

Although Uchitelle (2006) focuses on the effect of layoffs on American workers, many of his points can be translated to people with physical disabilities, who face turbulent work environments, especially those working in the secondary labor market. Not only does Uchitelle (2006) describe the psychological effects layoffs have, he also describes new career realities for Americans. One such reality is the fact of downsizing. Downsizing has changed the loyalty contract between employers and workers as well as heightened the level of stress and job insecurity for employees. Productivity gains have come at a price of reducing job satisfaction, eliminating rungs on career ladders and forestalling job creation.

Not only does this spell out additional challenges for people with disabilities, as the jobs being created will be in the secondary market but also due to increased number of workers searching for jobs due to layoffs and downsizing, the competition for those jobs will be fierce. Workers who were laid off or lost their job due to downsizing more likely will having higher skills, experience, and education. Many of these issues are changing the way people "feel" about work. There is no longer the sense of job security people had years ago.

Yelin (1997) explains "recent trends in employment, particularly the growth of a contingent labor force and the spread of displacement to white-collar jobs, portend a difficult road ahead to secure access to employment for people with disabilities" (p. 119). Yelin (1997) describes how the workforce has changed between salary and wage workers, where work is no longer divided based on responsibility, but rather into "core and peripheral workers, with the former hired permanently and the latter hired on a project-by-project basis" (p. 124). For those working on a project-by-project basis, employment stability and consistency will be less than those able to secure permanent placement within a company.

The labor market has moved away from lifetime employment toward individual responsibility for maintaining lifetime employability. Many of the career development theories and strategies in the past are irrelevant in today's labor market and changing labor relationships. Career development models and teachings are not up to date with our current world of work. One such challenge is navigating the job search using social networking. Another challenge, knowing how increased education leads to higher wages and increased employment, is securing employment after college.

## STRATEGIES FOR NAVIGATING THE JOB SEARCH

Social networking, or using personal contacts to discover job opportunities, is very central to the job search, and Montgomery (1991) reports these social networks have been shown to play an important role in obtaining employment. Langford, Lengnick-Hall, and Kulkarni (2012) explain many job notices are not advertised through formal announcements anymore, but through professional and personal contacts which are leveraged to discover prospective employees. In fact, the number of positions filled without active recruiting sources (such as formal announcements) may be as high as 30%, and instead informal networks are used to fill these vacancies, which is preferred by many employers (Ruef, 2003).

Very little research has been conducted to determine how, or if, people with disabilities use their social networks in finding employment, which means there is no model to determine how social networks affect employment options for people with disabilities (Langford et al., 2012). Montgomery (1992) reports previous research has shown that individuals with stronger relationships will lead other people to work harder to match the job seeker with job openings and opportunities. People with disabilities often face challenges building these critical social networks which, in turn, limits their employment prospects (Stone & Colella, 1996).

Stigmatization of people with disabilities may influence the extent to which they voluntarily participate in networking opportunities to further build their social networks, which may be a factor in low employment rates (Langford et al., 2012). For people with disabilities, the disability is most often evident and at times the more noticeable the disability, the more negative the reaction by others (Langford et al., 2012).

Langford et al. (2012) describe the following to be barriers people with disabilities face when trying to build social networks: "(1) they may suffer from an outgroup status in social settings, (2) they may themselves play a role in staying on social peripheries,

and (3) technology mediated interactions may inadvertently exclude them (e.g., those with visual disabilities may not derive as much benefit from networking websites such as Facebook)" (p. 5). More research into the area of social network analysis of people with disabilities needs to be conducted to further understand how social networks are used by people with disabilities, specifically in relation to the job search, as well as providing education and training for people with disabilities to use this resource to increase employment opportunities.

Another job search tool, specific to postsecondary education recipients, is Recruiting Trends (Gardner, 2012), which is a yearly publication generated after surveying 4,200 employers seeking full-time talent, from across multiple industries from across the country. Postsecondary education does not guarantee employment, yet increases opportunities, if you know how, and where to look. *Recruiting Trends* can help navigate some of these postsecondary job search challenges.

Recruiting Trends provide important information that can be used both in decision making about potential postsecondary options (where growth/hiring is strong) as well as specific labor market information (Gardner, 2012). This labor market information includes employer hiring intentions specific to company size, academic major, industry, and hiring plans regionally and globally. Salary information, specific to major, and when employers plan on finalizing their hiring for each year are also provided. Internship recruiting activities are included and provide beneficial information regarding obtaining experiential learning opportunities for postsecondary recipients. Type of industry hiring interns, wages paid, and conversion of interns and co-ops into full-time hires are also reported. Types of assessments employers use during the hiring process and importance of specific college activities (i.e., internship and professional organization involvement) are also ranked in relation to recruiting (Gardner, 2012). Recruiting Trends is a critical tool, especially in using demand side strategies to research growth occupations and opportunities for employment.

Recruiting Trends is unique as it provides current annual information directly from employers who are hiring. Labor market and job outlook data are supplied including current hiring competition among different occupations. Gardner (2012) states "the best job seeking strategies still depend on connections between faculty, students, career services professionals, alumni, parents, and hiring staff in organizations" (p. V).

Education is not a fit for everyone, including everyone with a physical disability, yet employment can be. Inge et al. (2000) showed results from a preliminary study where individuals with severe physical disabilities can maintain employment by combining supported employment and assistive technology within the workplace. Assistive technology, although not discussed in depth in this chapter, is vital in assisting people with physical disability succeed in educational pursuits, career attainment, and living independently (Stumbo et al., 2009). While understanding career theory, labor markets and the changes in the world of work are crucial, understanding an individual with a physical disabilities ability to function in different environments, such as through using the International Classification of Functioning (ICF) model, increases the opportunity for successful employment outcomes.

## USING THE ICF MODEL FOR SUCCESSFUL EMPLOYMENT OF PEOPLE WITH PHYSICAL DISABILITIES

For many years in the United States, understanding of physical disabilities in the context of chronic illness has been designated by the medical model (Smart, 2001), which emphasized pathological, objective, and standardized measures to define and characterize the

condition, while focusing on treatment and prognosis (Fowler & Wadsworth, 1991). From the medical model, a person's role and function in the broader scope of society and environment are ignored. "Diagnostic labels alone neither predict nor describe actual functional capacity of the individual within the context of their daily life" (Falvo, 2009, p. 2). Physical and social environments can impact the extent, type, and severity of the disability experience.

As a classification system intended to capture the complete range of human functioning, the World Health Organization's (WHO) International Classification of Functioning, Disability and Health is an important development in the field of rehabilitation and allied health sciences and was endorsed by the 54th World Health Assembly for international use on May 22, 2001 (WHO, 2001). The ICF is not an assessment or a diagnostic tool but is "based on a biopsychosocial approach that allows users to document the impact of health conditions on human functioning from biological, individual, societal, and environmental perspectives" (Reed et al., 2005, p. 122). By considering the real-world performance and environmental factors, the ICF underscores the role of environment in overall human functioning, which is vital in identifying employment opportunities for individuals with physical disabilities.

The ICF model helps "rehabilitation practitioners more specifically and precisely identify those subsystems or environmental factors that have an impact on successful job placement" and makes the ability to communicate "between placement professionals and other disciplines more consistent" (Homa, 2007, p. 280). An important emphasis of the ICF model is "related to the effect of environmental factors on full community participation of people with in all aspects of life including employment" (Chan et al., 2010, p. 407). While the ICF model has moved to change definition to include environmental factors, helping "people with disabilities develop flexible, versatile, and adaptable work skills to meet employer expectations and requirements for jobs in the new economy will improve their odds of obtaining employment" (Chan et al., 2010, p. 408).

## CONCLUSION

This chapter presented some of the opportunities and challenges facing people with physical disabilities in obtaining employment consistent with their career aspirations, interests and capabilities. In order to provide meaningful and impactful assistance, service providers need to understand many factors, including knowledge of specific career theories, labor markets, employment strategies, changes in the world of work, and how individuals with disabilities function in different environments in order to be effective in providing services that lead to successful competitive employment and full participation in the community.

Practitioners providing employment services to these populations also need to be aware of the research and the evidence-based practices that are emerging for this population.

Although there has been significant amount of research conducted over the past 50 years in rehabilitation counseling and job placement, most of this has been descriptive in nature with many of these efforts attempting to determine relationships among existing data, rather than a purposeful approach to define what types of intervention or services appear to work best with what specific populations, under what specific conditions (Paul, 1967). Clearly, this is an area of limitation in regard to our existing research emphasis that needs to be addressed in future research initiatives in order to establish evidence-based practices for this population to guide interventions and services aimed at people acquiring meaningful employment and job tenure in their careers (Leahy & Arokiasamy, 2010).

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# *Chapter 25: Addressing the Career-Related Needs of Women With Disabilities*

*LIZA M. CONYERS, PIA SMAL, AND YUNG-CHEN CHIU*

***After reading this chapter, you should be able to:***

1. Provide a context for the career development-related challenges for women with disabilities.
2. Describe a model of considering work for women with disabilities that human service professionals and counselors can use to help conceptualize the complex medical, financial/legal, psychosocial, and vocational dynamics involved in considering work or changes in work status.
3. Discuss relevant assessment, intervention options, and resources that can be used to assist women with disabilities consider their employment options and make informed decisions about their overall career development.

Women who have disabilities face many challenges that, in combination, can have a unique impact on workforce entry, career decision making, and employment outcomes. Most striking is the tremendous disparity in employment and economic outcomes among women with disabilities. Although people with disabilities generally have poorer employment and economic outcomes than those without disability, women with disabilities are almost twice as likely to be unemployed or to have full-time jobs as men with disabilities (Randolph & Andresen, 2004; DOL; Smith, 2007). Consequently, the socioeconomic status of women with disabilities is significantly lower than men with disabilities and, even when women with disability are employed, they tend to earn significantly lower income (Mwachofi, 2009). Rucker, Rice, Lustig, and Strauser (2003) examined gender differences in participation and outcomes of vocational rehabilitation programs found that women are more involved in counseling interventions than the men, but that the men report

higher rates of employment two months after completing the program. In light of these dire outcomes and the critical roles that paid work can play in alleviating poverty (England, 2003), this chapter adapts a client-focused considering work model to (a) highlight the barriers to work for women with disabilities, (b) discuss ways to assess these barriers, and (c) provide a framework for evaluating the considering work process and incorporating varied interventions to address the unique psychosocial, financial/legal, vocational, and medical barriers to employment for women with disabilities. We begin with providing a broad overview of the demographics of women with disabilities.

## OVERVIEW OF WOMEN WITH DISABILITIES

According to Erickson, Lee, and von Schrader (2013), women in the United States have both higher rates of disability (19.8%) when compared to men (17.4%) and a higher concentration of severe disabilities (13.7%) than men (11.4%). As such, it is essential that human service providers, counselors, and medical professionals who work with women with disabilities have a solid understanding of the factors that can impede their vocational development and engagement in the workforce. Women with disabilities from ethnic and racial minority backgrounds face disproportionate rates of disability with Native American/Native Alaskan women having the highest percentage (15.8%) followed by African American women (14.0%), White women (12.5%), and Asian women (6.7%) with a catch-all group of "other" women accounting for 8.7% (Erickson, Lee, & von Schrader, 2013). As access to educational, vocational, and medical resources is disproportionately impacted by race and ethnicity, considering how service needs may vary across cultures is critical.

According to the American Community Survey (2010) within the category of physical/sensory disabilities, 2.3% of women reported a visual disability; 2.8% of women reported a hearing disability, and 7.9% reported an ambulatory disability (determined by whether the person has serious difficulty walking or climbing stairs). Additionally, approximately 4.7% of women have cognitive disabilities. Women are also more likely to have chronic illnesses (e.g., multiple sclerosis, diabetes, rheumatoid arthritis), which is the largest disease category in the United States (Fairweather & Rose, 2004). According to SAMHSA (2010), adult women (23.8%) were more likely than adult men (15.6%) to have had a mental illness in the past year. Women are also more likely to have a significant mental illness (6.4%) compared to men (3.2%).

Each of these varied disability and illness groups will share some similar needs and concerns relating to employment (e.g., assessing impact on social security benefits, labor market constraints) as well as their own unique concerns (e.g., functional limitations or discrimination that are more directly related to the specific disability (Gouvier, Systma-Jordan, & Mayville, 2003). Disability status plays a major role in workforce participation. Although 63% of women were employed in the year of 2010 (American Community Survey, 2010), only about 31% of women with disabilities were employed that year. In the year 2011, only 37% of women with disabilities reported working in the past 12 months, and only 16.4% of women with disabilities reported working full time (U.S. Census Bureau, 2011).

## THE CLIENT-FOCUSED CONSIDERING WORK MODEL

In light of the many barriers facing the economic and employment-related needs of women with disabilities, it is important that human service and rehabilitation professionals have a conceptual framework to synthesize both the nature and type of barriers

that many women face as well as the facilitators of employment. A balanced framework can also help women with disabilities to fully explore their employment options without prematurely foreclosing options or rashly engaging in career paths without thoughtful consideration of potential risks and benefits. Having a conceptual model is also important to identify and design appropriate vocational rehabilitation assessments and interventions as well as to establish a framework for ongoing research in this area.

The client-focused considering work model (Goldblum & Kohlenberg, 2005) was developed in collaboration with a rehabilitation counselor and a psychologist who specialized in providing vocational services to individuals with HIV/AIDS. These authors drew upon the vocational rehabilitation literature to identify four main domains of influence (medical, financial/legal, psychosocial, vocational) that typically motivate and/or inhibit vocational rehabilitation outcomes. Within the context of this chapter, we will adapt this framework to examine how each of these domains relates to the employment-related needs and challenges of women with disabilities. Goldblum and Kohlenberg (2005) selected these domains based upon commonly explored topics in vocational rehabilitation counseling and empirical and anecdotal research related to the pressures and barriers to employment among people with disability. By taking these four domains into account, women with disabilities who are considering any changes in their employment status can increase their ability to make well-informed decisions that maximize the benefits of employment transitions and minimize the undesirable costs, even if that should result in an active decision not to work.

A unique component of this model is that it not only identifies four key domains that are theorized to motivate or limit vocational decision making among people with disabilities, it also incorporates stages of change theory (Prochaska, Norcross, & DiClemente, 1994) to delineate four phases of considering work: (a) contemplation, (b) preparation, (c) action, and (d) resolution. While the authors note that the process of considering work is nonlinear, they posit that it typically starts with a perceived pressure for change in employment status. This pressure can be the result of a number of different factors including medical (e.g., changes in health status), financial/legal (e.g., economic need), psychosocial (e.g., boredom), and/or vocational (e.g., strong vocational identity).

### *Theoretical Foundations of the Client-Focused Considering Work Model*

The client-focused considering work model is consistent with the recommendations to incorporate an ecological approach to examining the employment-related needs of individuals with disabilities that place a primary emphasis on the dynamic interactions between the individual and the environment (Szymanski & Hershenson, 1998). For example, each of the five constructs identified in the ecological model of career development (individual, contextual, mediating, environmental, and outcome) can be integrated within the four key domains of the considering work model and it is expected that each of these domains interact with each other to create unique circumstances for each woman with a disability.

Unlike career development theories that provide a broader context for the overall career development process, the client-focused considering work model focuses on a specific period within individuals' vocational development when the client perceives a pressure to make a change in her employment status and could benefit from a structured process to evaluate the potential benefits and risks of change at that given point in time. Pressure to change can occur during any stage of career development. As such, the client-focused considering work model can be applied within a number of different

career development frameworks and reflects key elements of change theory as well as career barrier and career indecision research. Each of these broader theories can be drawn upon to identify potential assessments and suggest potential paths of intervention to meet individual needs to guide the considering work process.

## BARRIERS TO WORK AMONG WOMEN WITH DISABILITIES

As mentioned earlier, women with disabilities face many barriers to employment that lead to greater levels of poverty and constricted vocational options. It is helpful to be able to break these barriers down to the four key domains addressed in the client-focused considering work model.

### *Medical Domain*

Improvements in health and function are critical antecedents to improved employment outcomes for women with disabilities who are considering entering the workforce. Deterioration in health can also reduce the work capacity of women who are employed and need to evaluate the extent to which they can maintain their employment status. For instance, women with fibromyalgia may experience pain, fatigue, and decreased muscle strength, all limitations that they need to take into consideration when they choose a work environment, type of job tasks, and work schedule (Henriksson, Liedberg, & Gerdle, 2005).

Review the research relating to factors associated with the medical domain of influence on employment and decision making is helpful to better understand the nature of medical barriers and to identify when changes in health status may provide a need to reconsider one's employment status. According to Goldblum and Kohlenberg (2005), the medical domain includes constructs such as perceived and biological markers of health status (e.g., general health perception, results of blood/genetic tests, or biopsy results) and physical capacities (e.g., strength, endurance, and dexterity) of the individual. Research studies on the labor force participation of women with disabilities have found that health status affects both the likelihood of being employed as well as the variety and quality of employment options (Båtevik & Myklebust, 2006; Botuck, Levy, & Rimmerman, 1996). Women with disabilities often have multiple health challenges, which can compromise health and functioning and pose further barriers to employment. Many women with disabilities also face medical challenges associated with medication side effects and adherence challenges. For example, disabling side effects of medications can limit the ability to work (Haslam, Atkinson, Brown, & Haslam, 2005), as can challenges associated with adapting to complicated medication protocols (Kohlenberg & Watts, 2003). As can be expected, successful medical protocols that lead to improved health outcomes are associated with successful employment outcomes for women with disabilities (Haslam et al., 2005; Sewitch et al., 2004; Simoni, Frick, & Huang, 2006). Given the higher rates of mental illness among women, medication adherence can be a critical factor to consider. One challenge to self-care among women is that they are socialized to care for others and often prioritize others needs above their own (National Family Caregivers Association, 2012). When working with women with disabilities, it is important to evaluate the balance of multiple roles and the degree to which these women are able to attend to their personal and medical care.

Sherbourne, Dwight-Johnson, and Klap (2001) indicated that almost two-thirds of individuals with a diagnosable mental illness do not seek treatment due to a variety of factors. One such factor is that while access to primary care physicians is high, mental

health disorders (even prevalent ones such as anxiety and depression) are often left undiagnosed. Furthermore, one of the most common barriers to mental health care for women is the cost of health care, particularly for the unemployed or uninsured (Sherbourne et al., 2001). The lack of access to health care also has an impact on women's quality of work. Individuals with chronic illness reported that not being able to access medical services resulted in increased depression, stress, and frustration, which directly impacted their relationships both inside and outside the workforce, in addition to affecting their quality of work (Neri & Kroll, 2003).

Women who have access to health care often are not aware of or informed about the unique ways in which their health condition interacts with their gender and can result in different patterns of symptoms than their male counterparts. For example, Bounds, Schopp, Johnstone, Unger, and Goldman (2003) found that men and women with traumatic brain injury (TBI) experience different emotional, cognitive, and vocational outcomes. In light of these and similar findings, a National Institute of Health panel on TBI has recommended that women with TBI need more attention. Gender differences have also been found in the rating of symptoms and need for emotional support among people with chronic illness (Munir, Pryce, Haslam, Leka, & Griffiths, 2006).

### *Financial/Legal Domain*

Although medical advancements and health clearly serve as a foundation to the ability to consider employment, research also provides support for the important role that financial and legal factors can play in the employment decision-making process as well (Mwachofi, 2009). As defined by Goldblum and Kohlenberg (2005), the financial/legal influences on considering work include government and/or private disability income, eligibility for health insurance and housing subsidies, understanding the many and varied legal definitions of disability, and understanding one's rights under the Americans with Disabilities Act. The Rehabilitation Act (1973) emphasizes gender equity and nondiscrimination in vocational rehabilitation services, but barriers to accessing services and benefits still exist for women with disabilities (Fulton & Sabornie, 1994; Menz, Hansen, Smith, & Brown, 1989; Mwachofi, 2009). Conyers and Datti (2009) examined the unmet vocational rehabilitation needs among women with HIV, the authors found that only a small proportion of women with HIV were aware of employment-related laws and services. Review of the research literature reveals that the complexity of rules and guidelines associated with maintaining access to health insurance and income maintenance are significant barriers to employment for women with disabilities (Hunn & Heath, 2011; Sherbourne et al., 2001). Loss of public income benefits and health insurance are often reported as a primary concern and disincentive to work (Conyers & Datti, 2009).

Over the past 20 years, there have been an increasing number of women in the criminal justice system. A large number of these women have been diagnosed with co-occurring mental illness and substance abuse, as well as increased rates of lifetime exposure to trauma (Sacks, 2004). Part of this increase is due to harsher sentencing structures for drug offenses, but it is also important to note that female offenders are more likely to be diagnosed with a mental disorder than male offenders (Sacks, 2004).

### *Psychosocial Domain*

Psychosocial influences on considering work are defined as the stigma associated with disability, coping with discrimination, and mental health issues associated with and/or concurrent with chronic illness and disability (Goldblum & Kohlenberg, 2005).

Other psychosocial issues include gender identity, domestic and sexual violence, and the meaning of work. Like other forms of stigma, workforce discrimination remains a significant challenge for women with disabilities. Disability may influence one's gender role identity (MacRae, 2005); gender expectations and self-identity may be impacted by the type of work and environment. Stereotypical gender role expectations also influence the types of employment which women with disabilities may obtain (Kim, 2007). Family structure is also a critical factor; women who are from a traditional family, living alone, or in other living situations may encounter different challenges when return to work (Dyck & Jongbloed, 2000). A supportive family with the possibility of sharing household responsibilities can facilitate more positive experiences for women at work (Dyck & Jongbloed, 2000).

Of particular concern is that when compared to women without disabilities, women with disabilities are at a 40% greater chance of experiencing physical, sexual, or emotional violence (Smith & Strauser, 2008). In addition, women with disabilities who experience physical and sexual abuse are more likely to be unemployed or underemployed when compared to women without disabilities or those who do not experience abuse. Research has suggested that ongoing abuse is also more prevalent among women with disabilities. One of the contributing factors to this high rate of ongoing abuse is the high unemployment rate, career barriers, and inequitable pay that women with disabilities encounter, thus requiring them to rely on their abuser economically and physically (Schaller & Fieberg, 1998). When employed, women with disabilities are less likely than men with disabilities to achieve vocational goals, are more likely to earn less money, have less job stability, and typically work in lower skilled jobs (Fulton & Sabornie, 1994). Factors that contribute to these outcomes include psychosocial barriers such as social isolation, stigmatization as the result of sociocultural stereotypes, lowered levels of self-efficacy, conflicting role perceptions, and reduced feelings of personal self-control (Reed, 1999).

According to Magnus (2001), women with disabilities face occupational losses on a variety of dimensions. Social interaction is a large component of career self-efficacy, as the work we do is often correlated with the value that other people ascribe to us. Furthermore, a loss of occupation due to a disability can contribute to feelings of meaningless and identity confusion (Magnus, 2001).

### *Vocational Domain*

The last domain in the client-centered considering work model is the vocational domain of influence, which consists of key factors such as one's vocational background, education and vocational skills, as well as vocational interests and identity. Review of the research literature indicates that women with disabilities face a number of vocational barriers to employment including low educational attainment as well as low levels of job skills and job training (Fulton & Sabornie, 1994). Another challenge also shared with many others with disabilities is the challenge of having significant gaps in work history. One way to address vocational barriers is to disclose one's disability to request a reasonable accommodation or to help put vocational weaknesses in context. However, making decisions to disclose the disability status is a major concern for women with disabilities (Dyck & Jongbloed, 2000). For women with invisible disabilities such as mental disorders and HIV, disclosure may lead to discrimination and self-identity issues. The strongest predictor of disclosure among women with chronic illness is receiving emotional support from a manager (Munir et al., 2006). Work environment and job tasks modifications and a supportive work atmosphere also enhance women with disabilities' experience at work (Dyck & Jongbloed, 2000).

In terms of vocational outcomes, women with disabilities have more negative outcomes than men (Benz, Doren, & Yovanoff, 1998; Bounds et al., 2003). One study examined 653,206 individuals who had received vocational services in 2004 in all states and found that women with disabilities had lower employment rates and earnings, and they were more likely to depend on public support systems than did men (Mwachofi, 2009). The societal attitudes regarding the nature of female roles (Olson, Cioffi, Yovanoff, & Mank, 2000), workplace sexual harassment, and gender discrimination (Julius, Wolfson, & Yalon-Chamovitz, 2003; Mwachofi, 2009) also lead to negative vocational outcomes and income levels.

Many women seek part-time or temporary employment due to schedule flexibility, since childcare and family responsibilities are often concerns for women (MacRae, 2005). Women with disabilities also have a higher rate of working part time than women without a disability (Pagán-Rodríguez, 2009). Given the recent economic downturn and increase in the competitive demand for jobs, the abovementioned vocational factors can pose major barriers to considering employment.

## ASSESSMENT OF CAREER BARRIERS ACROSS THE FOUR DOMAINS OF INFLUENCE

The investigations of potential barriers that help to explain the gap in women's vocational achievement have been explored in the vocational psychology literature for over the past 50 years. Examination of these barriers has helped to identify factors that are unique to the vocational development of women (Betz & Fitzgerald, 1987) as well as ethnic minorities (Constantine, Erickson, Banks, & Temberlake, 1998; Hackett & Byars, 1996; Luzzo & McWhirter, 2001; McWhirter, 1997). Despite the gaps between achievement and potential among people with disabilities, research measuring the perception of career barriers of people with disabilities has been relatively sparse (Gutman, McKay, Ketterlinus, & McLellan, 2003; Lopez & Ann-Yi, 2006; Mamiseishvili, & Koch, 2012), and tends to target specific disability and/or demographic groups: epilepsy, AIDS, substance abuse, post-secondary education, and vocational rehabilitation. Of these, only a small portion specifically addresses the intersection of gender and disability (Gutman, McKay, Ketterlinus, & McLellan, 2003; Fabian, Ethridge, & Beveridge, 2009).

The career barriers inventory was developed by Swanson and Tokar (1991) to assess career barriers and how they differ by gender and race. However, much of the career barrier research has been conducted in a university setting using college students as the primary sample (Båtevik & Myklebust, 2006; Mamiseishvili & Koch, 2012). Having the ability to assess perceived career barriers is instrumental to examining if the client has considered a full range of options and to better understand the factors that may influence the implementation of considering work (Swanson & Woitke, 1997). Perceived barriers can also influence the choice and performance of individuals as they attempt to move forward through the different phases of the considering work process (Fabian, Ethridge, & Beveridge, 2009). Lent, Brown, and Hackett (2000) indicated that career barrier measures should be specific to developmental tasks and the population being studied.

In 2009, Fabian, Beveridge, and Ethridge adapted a shortened version of the career barriers inventory designed for college students (Byars, 1997) to create a career barriers inventory that would specifically address the needs of people with disabilities considering getting a job through the use of vocational rehabilitation services. To tailor this instrument, the authors replaced items that related to college major and graduation plans with information related to the potential loss of disability health benefits and other disability-related content. This study found that people with disabilities face multiple barriers to work and that women with disabilities had higher mean barrier

scores when compared to men. Although the total mean barrier score did not predict eventual job placements, health and social support did play a significant role. Those who reported more negative emotional and physical health outcomes and fewer social supports had less favorable vocational outcomes. Given the growing body of literature that documents the multiple barriers to vocational development among women with disabilities noted in the above discussion on barriers, more research needs to be done to better assess women with disabilities perception of varied career barriers across the four key domains to better identify the extent to which varied barriers impact women with disabilities (Botuck et al., 1996; Doren & Benz, 1998; Fawcett, 2000; O'Hara, 2004; Roessler, Turner, Robertson, & Rumrill, 2005; Smith & Strauser, 2008) (see Table 25.1). Such an assessment instrument could also be used to design targeted interventions for women with disabilities based upon the specific barriers identified. More research needs to be done in this area to get a better understanding of the role of career barriers in the lives of women with disabilities.

In addition to career barrier measures, a number of different assessments can be used to evaluate factors within the four domains of considering work. The nature of these assessments would vary somewhat depending upon the stage of considering work (Goldblum & Kohlenberg, 2005). For example, in the contemplation phase, the emphasis would be on if a person can work or not (e.g., Does considering work make sense medically?); whereas in the preparation stage, the focus would be more on how the medical and other domains affect decisions about job goals (e.g., How does medical status affect decisions about job goals and/or need for accommodations?). In the action stage, one would want to know more about the ability to maintain and/or improve health while going through changes to pursue job goals and, in the resolution phase, one would assess the overall impact of a change in employment status on one's health (e.g., Are the changes that were made good for health?) and economic well-being. A similar line of questions could be applied across the four domain areas and a guide to such questions can be found on the website of the Department of Labor: http://www.dol.gov/odep/topics/hivaids/Contemplation.htm#.UJW1SEJZ9bw.

In the medical domain, evaluation of biological markers and indicators of health status would provide some indication of the overall feasibility of work (Goldblum & Kohlenberg, 2005). One's health status could influence endurance, physical and mental limitation, and consistency at work. For many women with disabilities, the ability to maintain adherence to needed medications throughout the considering work process will impact health outcomes. A number of medication adherence self-efficacy scales have been developed and/or could be adapted for different populations (Erlen, Cha, Kim, Caruthers, & Sereika, 2010; Kalichman et al., 2005; Resnick, Wehren, & Orwig, 2003; Fernandez, Chaplin, Schoenthaler, & Ogedegbe, 2008). Given the significant impact that one's health perceptions can have on willingness to consider work, general health perception scales are also important assessments to consider (Brazier et al., 1992; Eurenius et al., 2007; Wu, Parkerson, & Doraiswamy, 2002). For women who are living with chronic or episodic disabilities such as cancer, diabetes, mental illness, and HIV/AIDS, assessments on the ability to cope with medical uncertainty can also be useful (Kenen, Shapiro, Friedman, & Coyne, 2007; Mishel, 1981; Reich, Johnson, Zautra, & Davis, 2006; Wu, Jacobson, & Malitz, 1997).

With respect to the financial/legal domain, the potential loss of government or private disability income and medical benefits is the primary concern for many people with disabilities who rely on these income sources. As such, in each stage of considering work, it is critical to assess the potential impact of employment decisions and transitions on the overall budget of women with disabilities. Given the high rates of poverty among women with disabilities and the impact on their children, this financial

**Table 25.1** *Key Resources to Facilitate the Vocational Development of Women With Disabilities*

| Resource | Description |
|---|---|
| Key Collaborators | Rehabilitation professionals, counselors, benefits experts, mentors, peers, and family |
| Medical Domain | Job accommodations network |
| | MedlinePlus women's health |
| Financial/Legal | Social security administration's red book |
| | Overview of individual development accounts |
| | Work place planning and assistance program |
| | National HIRE network (women with a criminal record) |
| | Lambda legal (lambdalegal.org) (lesbians and transgendered women's resource) |
| | Housing and urban development.gov info for disabled |
| | How to file a charge of employment discrimination |
| Psychosocial | Local women's resource center |
| | Monroe County Women's Disability Network |
| Vocational | State vocational rehabilitation services |
| | One stop career services—Department of Labor |
| | U.S. Small Business Association PWD (sba.gov, starting a business) |
| | Ticket to Work program |
| | Ticket to Work employment network directory |
| | O*NET career exploration tools |
| | My Next Move career research tool |
| | CareerZone |
| | Disability-related job banks: Ability Jobs, Disaboomjobs, One More Way, GettingHired.com |
| | Informational interviewing |
| | Internships: previewing a profession |
| | Workforce recruitment program for students with disabilities |
| | Job Corps (employment program for low-income people) |
| | YouthBuild (low-income youth employment initiative) |
| | Quick reference for job seekers: resources to help you find work if you have a disability |
| | The Abilities Find: entrepreneurship resources |
| | Information about the schedule a hiring initiative (a special hiring method for people with disabilities in the federal government) |
| | Employees practical guide to negotiating and requesting reasonable accommodations under the Americans with disabilities act |
| | http://www.communityinclusion.org/article.php?article_id=81 |

assessment needs to include any housing subsidies and family aid that may also be provided. It is critical to work closely with experts trained in this area such as representatives from the Social Security Administration and community work incentive coordinators. Unfortunately, many people with disabilities are not informed of the services and policies that can help to facilitate employment and women with disabilities are often less informed than their male counterparts (Conyers & Datti, 2009). This is most critical when it comes to programs such as the plan for achieving self support that allows women with disabilities to save money to pay for work-related expenses and knowledge about the availability of reasonable accommodations (Dyck & Jongbloed, 2000). Lack of knowledge of these critical resources can quickly end any thoughts of considering work and needs to be assessed to ensure that women are making fully informed decisions. Measuring clients' fear of losing benefits and helping them weigh the risk will be essential in making career decisions. Some clients may lack the knowledge of other resources, such as the Ticket to Work and Work Incentive Act. Therefore, accessing clients' knowledge of available resources is also important. Moreover, prior criminal history and immigration status should also be taken into consideration so that accurate information can be provided to address these barriers once they are identified (McGuire-Kuletz, Tomlinson, & Siblo, 2009).

Many of the myriad of psychosocial factors that should be assessed when women with disabilities are considering work (e.g., psychological functioning, social support systems, interpersonal skills, and coping skills) can be assessed with a comprehensive biopsychosocial interview (Goldblum & Kohlenberg, 2005). However, a number of specific assessment instruments, such as Posttraumatic Stress Diagnostic Scale (Foa, Cashman, Jaycox, & Perry, 1997), Center for Epidemiologic Studies Depression Scale Revised (CESD-R) (Eaton, Muntaner, Smith, Tien, & Ybarra, 2004), and Impact of Event Scale (Horowitz, Wilner, & Alvarez, 1979), can also be helpful. Given the high rates of mental illness and trauma in the lives of women with disabilities, it is important to explore these areas and consider their impact on vocational development. Perceived stigma is also one of the most serious career barriers which women with disabilities face and there are a range of disability-specific scales that can be used or adapted to measure this construct including: stigma scale for chronic illness (SSCI) (Rao et al., 2009) and the stigma scale (King et al., 2007).

Finally, in the vocational domain, vocational skills, interests, values, educational level, and past work experiences are often included in the evaluations. Much of this information can be derived from a comprehensive vocational interview. However, there is also a wide range of instruments that are applicable for women with disabilities. For example, the Functional Assessment Inventory (FAI; Crewe & Athelstan, 1984) is used to assess functional capacities by many state vocational rehabilitation services. Job-Seeking Self-Efficacy Measure (Barlow, Wright, & Cullen, 2002) is a tool that measures the self-efficacy in job-seeking skills among people with disabilities; Self-Directed Search (SDS; Holland, 1994) is a heavily used instrument which can be used to understand clients' career-related values and interests, and to help clients make career decisions.

External factors such as job market, geographical influences (e.g., inaccessibility of employment, cost of living), available resources (e.g., job accommodations) should also be assessed (Goldblum & Kohlenberg, 2005). The work experience survey (WES; Roessler & Gottcent, 1994) consists of an in-depth structured interview that provides information on six domains (background, disability, employment information, accessibility barriers, problems with essential functions, career mastery issues, job satisfaction concerns, top-priority barriers, and feasible solutions. Research supports the use of this assessment tool for assessing job tenure (Roessler & Rumrill, 1995), self-advocacy training (Rumrill, 1999), and for examining the career concerns of people with chronic illness (Roessler & Gottcent, 1994; Roessler, Reed, & Brown, 1998; Rumrill, Nutter, Hennesey, & Ware, 1998).

## CAREER-RELATED INTERVENTIONS FOR WOMEN WITH DISABILITIES

When considering vocational interventions for women with disabilities, it would be important to tailor the intervention to the appropriate stage of considering work. Each stage of the considering work model highlights a sequence of different decisions and related activities that a woman with a disability would need to process to effectively evaluate the benefits and risks of making a change.

Contemplation is when women are considering making changes, but have not yet made a decision (Prochaska & Norcross, 2001). Within the contemplation phase, the key question to address is: *Is any change feasible?* During the contemplation phase, clients may express anxiety and confusion due to the uncertainty of work-related changes (Prochaska et al., 1994). The client is willing to consider employment as an option, but is still hesitant to make a decision. This requires an evaluation of the benefits and risks associated with each of the domains of influence. Motivational interviewing (Miller & Rollnick, 2002) and psychoeducational programs may help clients raise career-related consciousness and enhance their interest in career exploration (Lam, Wiley, Siu, & Emmett, 2010). For example, one study developed a career curriculum for young women with disabilities, which focuses on self-awareness, disability awareness, gender identity issues, and career planning (Lindstrom et al., 2008; Lindstrom et al., 2012). Other strategies include gathering career-related resources and information for clients, exploring career options and concerns and facilitating a women's group for those who are considering work (Kohlenberg & Watts, 2003; Lusk & Cook, 2009).

Preparation is a stage when people are intending to take action, but have not yet reached an effective action (Prochaska & Norcross, 2001). During the preparation phase, the key question is *What change is best?* Within the preparation phase, individuals explore and set vocational goals and develop plans for meeting those goals. The decision-making process is still occurring in this phase; pros and cons are still need to be weighed (Prochaska et al., 1994). This phase can include activities such as identifying sources of training, participating in workshops or seeking career counseling. Evaluations of career barriers, vocational skills, and other strengths will help clients reinforce the commitment. Women with disabilities may want to consider participating in some prevocational activities such as volunteering to start to assess stamina, interests, and the possible need for workplace accommodations (Lindstrom & Benz, 2002). Women may also start to implement changes in their routine or medication management to see if any changes may facilitate their ability to move forward in the considering work process. Rehabilitation professionals can also encourage clients to identify external factors which could support their decisions, including social support (family, mentors, and peer support), development opportunities (education), and public resources (Noonan et al., 2004). Developing an action plan and removing career barriers will be important in this phase.

Each of the different phases of considering work also reflects varying levels of commitment. Goldblum and Kohlenberg (2005) underscore the role that improved health plays in this process. For women with disabilities, being able to commit to change not only reflects a willingness to take action but also an increased belief in one's ability to change. For many women with disabilities, the commitment to this level of change often requires a shift in their view of the medical reality of disability and its overall impact on their lifespan and functional capacity. As such, an important aspect of the preparation phase may also entail an exploration of fundamental beliefs about health and, depending upon the stability of the disability overtime, a need to develop an ability to cope with medical uncertainties. Some women with disabilities may benefit from some level of individual and/or group counseling to work through many of the emotional adjustments to making a major life transition and coping with uncertainty.

Action is the stage that involves the most critical changes and commitment (Prochaska & Norcross, 2001). As one moves into the action stage of considering work, the main question for women with disabilities to address is *How to achieve stated goals?* The main tasks associated with this phase are the implementation and refinement of vocational goals. Given the high level of anxiety that can be generated in this process, it is critical that individuals have the flexibility to reconsider their goals. Allowing for the possibility of reconsideration can help women with disabilities to be more open to considering changes associated with moving forward in the considering work process without fearing that they will be stuck in an unacceptable situation (Goldblum & Kohlenberg, 2005). Vocational skill training, symptom management training (Lofgren, Ekholm, & Ohman, 2006), work environment modifications, and other employment-related activities (e.g., job search and interview skills) are interventions that rehabilitation professionals and clients can work together to help improve client self-efficacy and achieve vocational goals (Lam et al., 2010). Additionally, during this phase rehabilitation, counselors need to help clients reevaluate their plans and modify the strategies, behaviors, and environment to succeed in their jobs (Lindstrom & Benz, 2002).

Resolution is the fourth phase of the client-focused considering work model and the main question to assess in this phase is *Has initial pressure to change been resolved?* The main activity associated with this task is to either adapt to new work activities or to resolve pressure through alternative means. Clients may face challenges and barriers at work, such as gender discrimination (Julius et al., 2003). Rehabilitation professionals need to address those concerns and help clients to resolve the difficulties to maintain employment over time.

Unlike the traditional stages of change theory (Prochaska et al., 1994), the client-centered considering work model does not include an underlying value assumption on employment status that is commonly associated with health-related problems typically address the stages of change theory (e.g., alcoholism, smoking). As such there is no concept of relapse within the client-focused considering work model, although women with disabilities may reconsider their decisions and move back and forth across the stages. Since the client-focused considering work model does not view the status of being unemployed as inherently problematic, there is also no pre-contemplation phase within this model in which the awareness of a problem must be brought to consciousness.

It is important to assess each client's stage of considering work throughout the service period. The traditional "one-size for all" approach is not cost effective in rehabilitation services (LASER; Lam et al., 2010). Rehabilitation professionals should assess client's readiness for changes and provide appropriate services accordingly (Prochaska & Norcross, 2001). The Lam Assessment on Stages of Employment Readiness (LASER; Lam et al., 2010) was developed based on the stages of change model to assess employment readiness among welfare recipients. The LASER has 14 items with a 5-point Likert scale that assess which phase a client is at (Lam et al., 2010). Identifying a client's current phase and providing phase-matched services would allow rehabilitation professionals to tailor effective interventions.

In conclusion, the client-centered considering work model provides a solid framework for exploring and assessing the career development process for women with disabilities. This model provides a structured approach to assessing vocational development overtime and especially at critical junctures where women may need to assess and/or reassess their employment status. The foundation for the considering work model is supported within the broader vocational psychology literature and a number of assessment instruments and intervention approaches are available to help human service professionals and rehabilitation counselors apply this model with their female clients with disabilities.

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# *Chapter 26: Essential Knowledge to Improve Employment of Ethnic Minorities With Disabilities in the United States*

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***After reading this chapter, you should be able to***

1. Discuss the importance of conducting race- and ethnicity-related research.
2. Describe the working age population of ethnic minorities with disabilities.
3. Understand the triple threat phenomenon of race, poverty, and disability.
4. Discuss differences in employment outcomes of persons with disabilities (PwD) based on ethnicity.
5. Describe the role of ethnicity in employment discrimination due to disability.
6. Identify several strategies that vocational professionals can use to work effectively with ethnic minority populations of individuals with disabilities seeking employment.

The vocational rehabilitation (VR) profession in the United States has existed for almost a century. In that time, the focus on improving vocational functioning toward the employment for persons with disabilities (PwD) has consistently been a priority in the quest to maximize independence. The reality is, unless one is born wealthy, work has been and still is the path to the American Dream for most individuals, and not just PwD. Not since the Great Depression has the importance of gainful employment been as essential to all Americans as it is today given the austere economic times. Therefore, it stands to reason that the importance of employment for PwD in current times cannot be overemphasized. Enhancing employment opportunities for ethnic minority populations of PwD is an equally pressing imperative.

This imperative has relevance within the broader context of ethnic minorities without disabilities since rates of unemployment in nondisabled minority populations are substantially higher than for majority populations. For example, by the end of August 2012, the overall unemployment rate in the general European American community in the United States was 7.2% compared to 14.1% in the general African American community (U.S. Bureau of Labor Statistics, 2012). Additionally, within the disability community, it is well established that disability disparities exist that translate to lower levels of participation and less favorable rehabilitation service outcomes for ethnic minority clients when compared to majority population clients (Lewis, 2009; Rehabilitation Act Amendments, 1992). The combination of disproportionately high unemployment in the nondisabled African American community (a minority population exemplar) and the disability disparities that exist on the basis of cultural orientation in the community of persons who have a disability, points to a mandate to enhance employment of ethnic minorities with disabilities.

This chapter offers the reader essential knowledge needed to successfully improve employment among ethnic minority populations of PwD. If the reader can understand the topics presented in this chapter and if he earnestly attempts to use such understanding as a basis for action, he will be optimally positioned to successfully facilitate employment outcomes among PwD who are members of ethnic minority groups in the United States. In promoting this essential understanding, we cover a handful of topics that provide a broad perspective on the context of the challenge. To this end, the chapter starts with a discussion on the relevance of conducting race-related research. Then, we examine a profile of the working age minority population of PwD. Next, we explore the triple threat phenomena of race, poverty, and disability. Disparities in employment outcomes based on ethnicity are subsequently addressed, followed by a discussion on employment discrimination due to disability and the role of ethnicity. Finally, the chapter concludes with the identification of several bottom-line strategies that prescribe what VR professionals can do to work more effectively with ethnic minority populations of PwD who are pursuing employment.

## RELEVANCE OF CONDUCTING RACE-RELATED RESEARCH

We have purposefully chosen to use the term ethnicity in reference to group membership. We are aware that within rehabilitation and across related fields data are collected and analyzed using racial classifications as a means to understand the role and impact that social perception based on "race" can have on our environments, institutions, and daily experiences. Given that difference related to ethnic or racial group membership is a focal point of this chapter and is used as a variable of interest in much of the research we are discussing, we find it prudent to address some of the justifications that are given for continued scholarship on race. (The terms ethnicity and race are used interchangeably throughout this discussion.) The American Sociological Association issued a statement on the importance of collecting data and conducting scientific research on race (American Sociological Association, 2003). While some have argued that investigating disparities across racial categories only serves to create or perpetuate problems where none would normally exist, others maintain the only way to have bona fide social equity is to thoroughly understand current racial disparities that exist and the social mechanisms through which they are preserved (American Sociological Association, 2003).

The authors acknowledge that a refusal to measure the consequences related to racial classification will not in any way negate how race is used in daily life to perpetuate inequalities. To expound upon this, there are a few key points in support of

conducting race-related social science research. First, race has and continues to shape social and economic life in the United States. Therefore, understanding how, when, and why the concept of race is used will help elucidate how racial categorization influences social organization and interpersonal relationships. Second, because race is a concept that is socially constructed (Smedley & Smedley, 2005), understanding how aspects of the concept change across contexts will shed light on how our belief systems surrounding race are formulated and how the existing power relationships among racial groups are framed. Third, racial hierarchies embedded in our social and economic institutions used as a means to sort and stratify inflict very real consequences across contexts such as the job market, education, housing, and health care (American Sociological Association, 2003; Erickson, Lee, & von Schrader, 2011).

For rehabilitation professionals, understanding how the consequences of race-related disparities uniquely and distinctly influence minorities can be of great value when developing and implementing interventions and designing policy for the benefit of clients. Taylor-Ritzler, Balcazar, Suarez-Balcazar, Kilbury, Alvarado, and James (2010) argue that

> … the VR process is rooted in relationships that form between VR consumers and their counselors and in the development and implementation of rehabilitation plans. Moreover, this process is affected by elements of the context of the VR system, the community, and *other forces within society* [emphasis added]. As such, there is a need for a richer understanding of how culture affects VR processes. (p. 4)

With this in mind, we contend that it is essential in job and career development work that rehabilitation professionals build an awareness of salient contextual issues that affect the daily lives and labor market experiences of PwD who are also ethnic minorities (Bertrand & Sendhil, 2004). The growth of diversity in America, group histories of oppression, racial stratification of the labor market, and racial disparities in education as well as in wealth and health are prominent facets of the societal landscape that distinctly shape life experiences for minority individuals (Worthington, Flores, & Navarro, 2005). When disability is added to this mixture of facets, the complexity necessarily increases.

## PROFILE OF WORKING-AGE MINORITIES WITH DISABILITIES

The analysis of employment data pertaining to ethnicity reveals a picture of ethnic disproportionality among PwD. Among working-age people in the United States in 2009, 10.1% of individuals who identified themselves as European American reported having a disability. This is contrasted with a 14.1% disability rate for those identified as African American, 18% for individuals identified as Native American, 4.5% for Asian Americans, and 10.1% for those identifying as some other race or ethnicity. For people identified as Latino or Hispanic (these two terms are used interchangeably throughout this discussion), the working-age disability prevalence rate for 2009 was 8.3%. As one would reasonably expect, disability rates rose sharply for all groups after age 65, reflecting the known increases in disability prevalence with age.

Speaking to the long-term trend of disparities in employment outcomes for PwD, the 2010 Progress Report on the Economic Well-Being of Working-Age People with Disabilities (Bjelland, Burkhauser, von Schrader, & Houtenville, 2011) affirms that persistent gaps exist between working-age people with and without disabilities on a number of measures. Bjelland and associates examined data collected during 1981–2010 from the Current Population Survey's Annual Social and Economic Supplement (CPS-ASEC)

(Erickson, Lee & von Schrader, 2011) Looking just at trends for PwD, the data show a general downward shift from 1981 to 2010 for the employment rate and rate of full-time/full-year employment, and a general upward shift for the poverty rate.

Given that the special focus of this chapter is on ethnic minority populations, attention must be focused on demographic trends within the disability population related to race and ethnicity. The issue of disproportional prevalence rates of disability among minority groups and the parallel concern about disparate rehabilitation outcomes for members of ethnic minority groups continue to receive considerable attention in the rehabilitation literature (Cartwright & Fleming, 2010; Kim-Rupnow, Park, & Starbuck, 2005; Lewis, 2009; Lewis & Burris, 2012; Lewis, Shamburger, Head, Armstrong, & West, 2007; Smart & Smart, 1997; Wilson & Senices, 2005). A number of factors have been identified as contributing to the higher prevalence rates of disability among ethnic minorities:

- Disproportionately high exposure to serious health risks (Lewis, 2009)
- Overrepresentation in lower social strata where low income and poverty are more prevalent
- Employment in low status, physically strenuous jobs
- Low educational attainment
- Differential access to health care coupled with biased diagnostic/assessment tools (Smart & Smart, 1997; Stodden, Stodden, Kim-Rupnow, Thai, & Galloway, 2003)

The repercussions from exposure to these factors amass to create barriers that make it difficult for individuals to prevent, lessen, or ameliorate circumstances that can lead to disability.

While a percentage of this disproportionality (in prevalence rates) has its source in factors related to poverty, it is inaccurate to conclude that social influences distinctly related to ethnic group membership do not make specific and separate contributions to this issue. Social–environmental forces (like barriers associated with ethnicity) are likely to play a large role in the precipitation of differences between subpopulations of PwD (Burkhauser & Houtenville, 2010). Research on health and disability disparities among minority groups continues to show that ethnicity is a principal indicator of disparate outcomes (Lewis, 2009; Martin, 2010; Moore et al., 2009; Mwachofi, Broyles, & Khaliq, 2009; Warner & Brown, 2011). Interactions between the various social identities a person holds (e.g., ethnicity, class, disability, and gender) and the ramifications of such interactions on access to economic opportunity and stability have yet to be fully disentangled and understood (Olney & Kennedy, 2002).

Scholars aptly continue to recognize the importance of understanding how multiple group memberships shape access to resources and alter life outcomes for individuals (Cole, 2009; Olney & Kennedy, 2002; Purdie-Vaughns & Eibach, 2008). Specifically focusing on disability, Mpofu and Conyers (2004) point out that many ethnic minorities are faced with experiencing multiple minority statuses (multiple jeopardies) related to characteristics of their personal identity (e.g., race, gender, disability, class, ethnicity, sexuality, etc.), further intensifying the likely exposure to discrimination. Individuals differ in their experiences and interactions with the dominant culture, their own cultural groups, and how their various minority statuses interact to influence their life experiences (Mpofu & Conyers, 2004). So, it is important to avoid simplistically deducing that ethnic minorities with disabilities face increased risks due to traits inherent within the social identities they hold. As Mpofu and Conyers (2004) assert, "the effects of multiple jeopardy are not intrinsic characteristics of disability in racial, ethnic, cultural, and gender populations, although they may tend to occur in combination in societies with significant levels of racial, ethnic, gender, and cultural prejudice" (p. 148). In

other words, the jeopardy encountered by individuals with multiple minority statuses is not merely due to minority group membership, rather it is due to the level of societal prejudice attached to certain minority social identities that creates negative consequences for the individual.

## THE "TRIPLE THREAT" OF RACE, POVERTY, AND DISABILITY

Everyone brings to the table a unique blend of various cultural identities that when leveraged appropriately yields multiple benefits in the workplace and society at large. However, there are cultural identifiers that are frequently linked, even in the subtlest of ways, to power and high social standing (e.g., European American, upper class, male) (Croteau, Talbot, Lance, & Evans, 2002). Thus, reduced privilege, also in the subtlest of ways, often exists for those who do not have these identities (Harley, Jolivette, McCormick, & Tice, 2002). For example, racial/ethnic minorities tend to experience higher rates of disability resulting in significant health disparities (Mead et al., 2008). Individuals with disabilities tend to be employed at rates lower than those without disabilities (39.9% versus 80%, respectively) (Cornell University, 2010).

According to the U.S. Census Bureau (2011), 15.1% of all people in 2010 were poor, while 16.3% were without health coverage of which ethnic groups were disproportionately impacted. Possessing cultural membership as a racial/ethnic minority, someone who experiences poverty, and has a disability, that is, triple threat status, places individuals at risk for experiencing diminished mental and economic wellbeing (Nabors, 2012; Smith & Alston, 2009). And, while it is indeed important to understand how these cultural identities in isolation uniquely influence access to and outcomes associated with quality of life (e.g., education, employment, etc.), it is perhaps even more critical to fully appreciate the complexity that emerges when the identities intersect (Pitt, Romero-Ramirez, Lewis, & Boston, 2010). As a precursor to the triple threat phenomenon, researchers have identified a "double jeopardy" phenomenon, which is when a disability status is combined with another status such as race or sexual orientation (Alston & Bell, 1996). When the triple threat phenomena is at play, the cultural identifiers (i.e., race, disability, and poverty) are no longer operating in an independent fashion, but instead are yielding compounded effects forming dynamic systems of oppression (Winker & Degele, 2011). Consider the following example:

> Malcolm is an African American male who was recently laid off and is experiencing trouble re-entering the job market. It has been a year since he last worked. He has no more room on his credit cards and he has used up all the money in his savings account. Shortly thereafter, he lost his house and began living in his car. Staying with family was not an option, as he did not want to burden them. A friend living out of state found out about Malcolm's situation and sent for him. While living with his friend, Malcolm performed small jobs around the neighborhood to put money in his pocket. He admitted to feeling "down" and extremely "overwhelmed." Malcolm even experienced trouble getting out of bed at times. His friend took him to an agency that offered job placement assistance. He received some stares from folks in the office. One service provider whispered to the secretary at the front, "I don't know how people let it get this bad." During the meeting, Malcolm had difficulty understanding and admitting that he had a disability. However, the service provider informed him that in order to qualify for services, he needed to have a disability and talk about how it was impacting him in finding a job. He was not sure what this (i.e., disability) meant. Malcolm's friend sat in on the appointment and tried to provide what information he could.

While this scenario could be taken further, it does highlight some factors involved in serving populations with triple threat status, as well as the distinction between cultural identities that are both stable and fluid. Malcolm cannot necessarily "opt" out of being African American, and he also did not choose to experience poverty and acquire a disability. He may not feel as stigmatized when he is around his friend, who is also African American, but may feel it to a greater degree when he is accessing services and walks into an office where everyone else is European American. Or, Malcolm's ability to express his thoughts and feelings to his friend who is of a different class (i.e., middle class) about what it has been like to live in poverty may come easier than doing so in an office setting where the service provider who is also of a different class (i.e., middle class) and is European American perceives that Malcolm could have somehow prevented this from occurring.

Populations with triple threat status frequently experience a "shifting" of cultural identities that may be more or less stigmatizing based on context. In the above scenario, Malcolm could choose to hide the depression he is experiencing, which is a highly stigmatized disability, but he may not be afforded the choice of hiding his race (highly stigmatized) or control over how people respond to him when he goes to apply for job placement assistance and it is revealed that he is basically homeless (highly stigmatized) regardless of the factors that led to his situation. Taking into consideration cultural identities that are "fixed" (i.e., race and disability) and fluid (i.e., socioeconomic status) helps in understanding perceptions that are projected onto triple threat individuals (e.g., This is your fault.), which can in turn influence how they are related to and subsequently mistreated (Arredondo et al., 1996; Nabors, 2012). Moreover, these projections can be extremely damaging as blame is habitually cast without thorough examination of how other factors such as service provider biases, systemic issues, and societal ills (e.g., discrimination) add complexity to one's position in life (Hollar, 2001). Research suggests that counselor biases and perceptions penetrate multiple levels of service provision, including eligibility, clinical decision making, case conceptualization, treatment planning, and outcomes (Hays, Prosek, & McLeod, 2010; Rosenthal, 2004). Thus, it is logical to think that some individuals with triple threat status may engage in "passing" or concealing identities that are perceived as threatening as one way to access services and achieve quality of life outcomes (Nabors, 2012).

Provision of services to populations with triple-threat status requires an understanding of stigma management strategies that these populations constantly employ as a means of survival to combat feelings of hopelessness, dehumanization, and invisibility (Nabors, 2012; Tovar-Murray, & Tovar-Murray, 2012) in pursuing an overall sense of wellbeing and life satisfaction. Additionally, in serving populations with triple threat status, emphasis is placed on providers exercising cognitive versatility, which allows them to take in information; engage in critical self-reflection; alter thinking, attitudes, and behavior; function using multiple perspectives; and become much more resolute at several levels, including counselor preparation, service delivery, and research (Arthur & Achenbach, 2002; Granello, 2010). Specific to job placement, service providers, and organizations must be willing to advocate not only for PwD who have triple threat status, but for change in society realizing that there may be some factors to getting hired that are simply out of clients' control (Atkins & Wright, 1980; Bertrand & Sendhil, 2004; Block, Balcazar, & Keys, 2001).

## DISPARITIES IN REHABILITATION EMPLOYMENT OUTCOMES BASED ON ETHNICITY

Concerns over ethnic group equity, both in service provision and in outcomes, continue to render disability disparities a germane topic within the larger discussion on outcome equity for individuals who seek services. Disparities along racial lines are still identifiable within rehabilitation outcome data, revealing that people who are members

of racial/ethnic minority groups continue to achieve differential outcomes when compared to their European American counterparts (Capella, 2002; Gary, Arango-Lasprilla, & Stevens, 2009; LeBlanc & Smart, 2007; Moore et al., 2009; Olney & Kennedy, 2002; Stapleton, Honeycutt, & Schechter, 2010). Rehabilitation professionals, similar to others in society, are influenced by the socialization mechanisms that shape societal patterns of culturally biased norms, attitudes, values, and beliefs concerning race and ethnicity; it cannot be surprising that society's patterns of inequity are mirrored in the professional work counselors engage in with clients (LeBlanc, Wilson, & Juchau, 2008; Sue, 2004).

Researchers have identified four groups of variables believed to contribute to the issue of racial and ethnic disparities within rehabilitation service systems: (a) client characteristics, (b) counselor characteristics, (c) characteristics of service provision, and (d) macroeconomic indicators (Bellini, 2003; Matrone & Leahy, 2005). Of note, counselor ethnicity/race and client ethnicity/race continue to show some level of relationship to counseling outcomes (Alston, Gayles, Rucker, & Hobson, 2007; Bellini, 2003; Cumming-McCann, & Accordino, 2005; Martin, 2010; Matrone & Leahy, 2005; Rosenthal, 2004; Rosenthal, Wong, Blalock, & Delambo, 2004; Wilson & Senices, 2005; Whitfield, Venable, & Broussard, 2010). The interaction between counselor and client and the influence of race/ethnicity may be responsible for some of the variance seen in the analyses of outcome data for racial/ethnic groups (Whitfield et al., 2010). Owing to the predominance within the rehabilitation counseling field of service providers who are European American (LeBlanc et al., 2008), efforts to address the role of ethnicity/race in the relationship that is built between counselor and client are appropriate and important.

Persistent racial/ethnic inequities across various points of service delivery systems in rehabilitation have been a topic of concern and research, in particular within the state-federal VR system (LeBlanc & Smart, 2007; Lewis et al., 2007; Middleton et al., 2000). Section 21 of the Rehabilitation Act Amendments of 1992 issued a mandate that the public rehabilitation system in the United States needed to become more effective in working with culturally diverse and underserved clients. Section 21 noted (a) that the U.S. demography, projecting steady future increases in minority populations, was rapidly changing, (b) that higher rates of disability exist for some racial/ethnic groups, and (c) that state rehabilitation agencies have traditionally underserved minority populations (Lewis et al., 2007). The goal of Section 21 was to improve VR services to minority populations across a number of domains, most notably, access, quality of services, and employment outcomes (Bellini, 2003). This same spirit of equity is promoted in the professional code of ethics that guides the professional practices of rehabilitation counselors. The Commission on Rehabilitation Counselor Certification (CRCC) 2010 *Code of Professional Ethics for Rehabilitation Counselors* addresses several issues around the central theme of cultural diversity to help ensure that equitable service provision becomes the standard for all individuals who seek services from certified rehabilitation counselors (Cartwright & Fleming, 2010).

Even with such measures in place, trends of racial disparities are still apparent in the research literature on rehabilitation outcomes. LeBlanc and Smart (2007) summarized 27 studies that investigated disparities between racial/ethnic groups in public VR agencies. This research is of particular importance since the 1992 Amendments to the Rehabilitation Act highlighted the need to improve service provision to members of minority groups. Through their analyses, LeBlanc and Smart identified a number of areas where disparate outcomes exist for members of racial and ethnic minority groups: (a) resources at entry, (b) acceptance rates for service, (c) types of services provided, (d) closure statuses, and (e) wages and benefits. For example, African Americans possessed fewer resources and were more likely to be supported by public assistance, whereas European Americans were more likely to be supported by earnings, friends, family,

or workers' compensation (LeBlanc & Smart, 2007). Findings across studies examining acceptance rates were contradictory, with a few studies finding no statistical difference in eligibility, yet a number of studies found consistent patterns of differences in acceptance rates. African Americans were more likely to be rejected for VR services, even when disability severity, type of disability, education, and socioeconomic status variables were controlled (LeBlanc & Smart, 2007). This pattern was also observed among Hispanic individuals who self-classified as African American versus those who self-classified as European American as a racial status (due to designation as Hispanic being considered an ethnic identification rather than a racial category) (LeBlanc & Smart, 2007).

With respect to closure statuses, European Americans were closed with employment in competitive employment settings at a rate of 60% as compared to 41% for African Americans. African Americans had lower successful closure rates, even when severity of disability was controlled. Again, this trend was also noted among Hispanics who identified themselves as European American versus African American (LeBlanc & Smart, 2007). Racial disparities also emerged in literature examining wages and benefits. African Americans earned less than European Americans after successfully completing the VR process, and non-European Americans were also less likely to have access to benefits once employed (LeBlanc & Smart, 2007).

Chan, Wong, Rosenthal, Kundu, and Dutta (2005) examined the influence of racial bias in patterns of differentiation between ethnic groups in eligibility rates. The authors analyzed eligibility rates of underserved PwD using Rehabilitation Services Administration (RSA) 911 data from the fiscal year 2001. They found that race was the second most important variable in accounting for eligibility decisions. African Americans and Latinos had the lowest acceptance rates among those with severe disabilities. Of those whose disability was characterized as "nonsevere," Asian and Latino individuals benefitted from the highest acceptance rates, whereas African Americans had the lowest acceptance rates.

The authors emphasized that racial bias is most likely to manifest when ambiguity is high, such as in the clinical judgment process during eligibility determination. In instances of ambiguity, counselors are most susceptible to the activation of implicit biases regarding client characteristics, which then influences their perceptions about what decisions need to be made regarding the client (Chan et al., 2005; Strohmer & Leierer, 2000). The significance here lies in the reality that the power differential in the helping relationship favors the professional. Szymanski and Trueba (1994) cautioned against rehabilitation professionals engaging in actions that would compound experiences of social exclusion and limit opportunities for clients who seek services. The potential to reinforce existing disparities (such as those discussed earlier in this chapter) is high when professional decision making is vulnerable to racial bias, implicit or explicit.

Mwachofi et al. (2009) analyzed RSA-911 data from the fiscal year 2006. Racial disparity patterns were also visible across a variety of outcomes in their analysis. Their results also revealed that minority clients did not get the same access to this quality service that translated to better employment outcomes as did their nonminority counterparts. This would suggest that counselor decision making regarding the level and duration of service provision is posing a barrier to minority clients accessing competitive employment; hollowing the promises of Section 21 of the Rehabilitation Act of 1992 (Mwachofi et al., 2009).

A number of studies have investigated employment outcome trends for ethnic minority groups. A study examining employment outcomes 10 years after traumatic brain injury (TBI) found that compared to European Americans, minority clients

were less likely to be competitively employed even after making adjustments for age at injury, preinjury employment status, cause of injury, and total length of stay (post injury) (Gary et al., 2010). In a sample of ethnically diverse women with psychiatric disabilities, Vaughn and Boston (2010) substantiated that VR services are effective with minority populations if the clients have access to those services. They found that having received VR services, in particular on-the-job supports, job placement, and maintenance services, predicted employment outcomes for women in the sample (Vaughn & Boston, 2010).

Meade, Lewis, Jackson, and Hess (2004) conducted a study exploring employment patterns among a sample of participants with spinal cord injury. Employment rates were compared before injury as well as 1, 5, 10, 15, and 20 years post-injury. The overarching finding was that the racial disparities found in the general population were mirrored in the data collected for the study. Employment rates after injury for European American participants improved with time, whereas employment rates for African Americans remained low. Further highlighting the consequences of racial bias for ethnic minorities, Krause, Saunders, and Staten (2010) revealed that post-spinal cord injury, European Americans were the most likely to work, followed by Latinos and then African Americans. The differential outcome patterns that emerged demonstrated that employment outcomes for European Americans exceeded that of any other group at all levels of education. African Americans did not benefit from gains in education commensurate with other groups, nor did their employment rates improve as severity of injury decreased, as was the pattern observed with European Americans and Latinos. In other words, findings from Krause et al. (2010) suggest that neither education level nor injury severity mitigated the relationship between race and employment. Differences in access to education prior to the spinal cord injury were noted as a significant factor that impacts service planning. Owing to lower levels of educational attainment experienced by minorities (a barrier to employment), practitioners need to be prepared to assist minority clients in supplementing their education. The authors concluded that irrespective of outside factors (labor market changes and employer behavior) rehabilitation practitioners must work to ensure that their actions and service delivery processes and systems do not exacerbate the effects of societal discrimination (Krause et al., 2010).

Velcoff, Hernandez, and Keys (2010) found that in a sample of Latino participants, acculturation patterns had some influence over employment outcomes. Those whose level of acculturation was closer to the mainstream (i.e., European American standard) experienced less dissonance and better outcomes in their VR service contacts than those participants with lower levels of cultural congruity with the U.S. mainstream. Analysis of the findings indicated that when working with Latino clients with lower levels of acculturation, rehabilitation practitioners were less adept at managing issues related to reduced English proficiency. In such instances, there existed an elevated role of familial support and higher levels of cultural mistrust in the helping relationship. The authors proposed that this maladroitness rendered interventions less effective with these individuals (Velcoff et al., 2010). Similarly, Da Silva Cardoso, Romero, Chan, Dutta, and Rahimi (2007) reported that service and outcome disparities existed for Latino clients with TBI. Their findings confirmed that European American participants had a higher likelihood of employment than Latino participants. Job placement and on-the-job supports were shown to greatly improve employment outcomes. However, European Americans were provided those supports at higher rates than Latino service recipients. Employment outcome patterns for ethnic groups continue to indicate that there is substantial room for improvement.

## EMPLOYMENT, DISABILITY, AND DISCRIMINATION: CONSIDERING THE ROLE OF ETHNICITY

People with disabilities routinely encounter negative attitudes and stigma that have contributed to discrimination in many institutions, including employment (Fowler & Wadsworth, 1991; Watson, 1994; Wehman, 1993). It has been 20-plus years since the passing of the Americans with Disabilities Act (ADA). In an effort to reduce further discrimination against PwD especially as it related to employment, this legislation was passed in 1990 (Batavia & Schriner, 2001), and it was amended in 2008 with more specificity given to definitions of disability and reasonable accommodations. McMahon and colleagues (2012) have conducted many studies (60+) on the outcomes of employment discrimination claims filed under the ADA using data from the national Equal Employment Opportunity Commission (EEOC). Of those studies, only a few have addressed the role of race or ethnicity in employment discrimination due to disability.

Notably, Lewis et al. (2010) addressed the influence of race on employment discrimination allegations filed under Title I of the ADA. The aim of this study was to compare allegations filed by European and African Americans. The analysis was based on 402,291 allegations, of which 75.6% of the accusing parties were European American and 24.3% were African American. This study concluded that while African Americans experienced a higher disability incidence rate, European Americans were more likely to file a complaint. European Americans were also more likely to file allegations for fewer employment discrimination issues compared to African Americans; and European Americans were more likely to be more than 55 years when they filed allegations, while African Americans were at 34 to 54 years. These findings have several plausible implications. European Americans with disabilities are more likely to be employed; therefore, more likely to file a complaint. Hence, there are more allegations by European Americans than African Americans. Also, African Americans may not be as likely to file a complaint under Tile I of the ADA as European Americans due to the perception of possible repercussions.

Hurley et al. (2010) conducted a study that also used data extracted from the national EEOC database, and this study examined the relationship between race of claimants who filed employment discrimination allegations under Title I of the ADA and the attributes of their employers. The study had several noteworthy findings. In terms of job type, European Americans were more likely to file when occupying blue collar positions (construction, mining, etc.). African Americans were more likely to file a claim while in professional and paraprofessional positions (health care, social services, etc.). This finding alludes to the fact that European Americans may be more empowered in general when it comes to protecting their rights afforded under the ADA and/or more likely to file a complaint in any type of job they occupy. On the other hand, African Americans seem to be more likely to file a complaint if they occupy a high-level job where perhaps there is a greater expectation for equitable treatment and less informality as in blue collar jobs. Also, in terms of size of employer, European Americans were more inclined to file complaints in companies that were small to medium in size compared to American Africans who were more likely to file in medium to large size companies. This again, may reflect that African Americans perhaps have more comfort in larger institutions where protocols and policies may be more formalized.

## STRATEGIES FOR WORKING EFFECTIVELY WITH ETHNIC MINORITIES WITH DISABILITIES

Several strategies for rehabilitation providers naturally derive from the topics discussed, and if embraced, might equate to some level of success in assisting ethnic minorities with disabilities toward achievement of gainful employment. The first strategy is for a

provider to understand one's own cultural baggage. This entails clearly identifying personal biases, stereotypes, and assumptions held about work, people who are attempting to enter the world of work, disability, and cultural matters such as race or ethnicity. A provider must be vigilant in exploring one's own beliefs and assumptions held about the importance of work for everyone and for specific subpopulations within the disability community. Once these biases have been identified, the rehabilitation provider then has to determine effective strategies for eliminating, or for mitigating the influence of such biases on the PwD.

The second strategy is to begin to understand the client's worldview. This involves identifying the client's cultural orientation (e.g., race, ethnicity, etc.) and understanding the client's values. This also means finding out the view of disability the client holds within his or her own culture, and includes beliefs about the origin of disability, the course of disability with or without intervention, help seeking behaviors, and what types of interventions are likely to be efficacious. Beyond this, the role of work from the client's cultural point of view would be helpful to know as well. All of these specifics can be gleaned once there is a positive working alliance between the rehabilitation provider and the client. Next, the tools of targeted inquiry, careful listening, and learning about the client in a nonjudgmental manner will augment the surfacing of this information.

Striving to function in a manner that is culturally competent is the third strategy. This process involves the three steps of (1) becoming acquainted with the worldview of the client and anticipating where the client's worldview might potentially collide with one's own worldview, (2) building a strong rapport with the client to increase the strength of the therapeutic alliance, and (3) ensuring that anything proposed by the counselor has strong buy in from the client, fully meets the client's cultural expectations, and most of all, does not in any way disrespect the client's cultural perspective. In addition to striving to be culturally competent, the rehabilitation provider can attempt to be culturally efficacious, the concept coined by Nunez (2000), which means viewing all cultures on a level playing field and continuing to strive toward a point of enhanced cultural understanding.

The astute rehabilitation provider would also be proficient in a fourth step. This step requires embracing a willingness to ask clients to help in the rehabilitation process by shedding some light on their worldview, culture, therapeutic goals, definition of adjustment to disability, and expected positive outcome(s) of VR services. Here, the counselor is actualizing the collaborative spirit and demonstrating through action that the client is an equal partner in the process who is fully empowered and self-determining.

The fifth step is for the rehabilitation provider to recognize that the traditional steps in the vocational evaluation—career counseling—job placement process of working with clients toward gainful employment may not be able to be applied in a lock-step manner. The evaluation and assessment protocols may require modification, along with the career counseling, job development, and placement processes. The individualized aspects of the client's cultural orientation must align with these usual processes, especially in a way that embodies the client's individuality, unique cultural identity, and best interests.

Step six requires the rehabilitation provider to recognize the limitations of their own education, training, and experience. Essentially, VR professionals must be willing to discard the components of their education and experience that do not align with the current client and situation, and embark on learning anew knowledge salient to the situation at hand. Sometimes, this may require acknowledging "nonexpert" status and becoming a lifelong learner, ultimately being willing to learn in the moment with the client and situation or even pull in an expert consultant for assistance.

The effective rehabilitation provider will have to possess a willingness to not pathologize or spin negatively the differences in participation patterns, levels of commitment, or degrees of motivation in ethnic minority clients. There must be a steadfast urge to resist labels like "noncompliant" and "resistant to help" in exchange for embracing an inclination to explore any and all matters that reflect a different experience with sufficient depth, cultural sensitivity, and an openness to and acceptance of what the bottom-line implication(s) might be.

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